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BULLETIN

No. 1

Portland, Oregon, December 11, 1915

MR. HARDY HAS A MESSAGE FOR YOU.

That it will interest you need not be added, for you know already, that Mr. George E. Hardy, executive secretary of the Portland Chamber of Commerce, is one of the liveliest wires that has come out of the East for many, many moons.

A chance for you to meet Mr. Hardy and hear his message will be given you **Thursday evening, November 16, 1915, at eight P. M.**, in the Grill Room on the sixth floor of the Commercial Club Building.

A buffet luncheon will be served. The cost will be only the effort of attending the meeting and helping yourself.

A special cargo of "meerschaums" fresh from the Missouri cornfields is on the way, which, with a goodly quantity of "Surveyor's Delight," will furnish smokes for those who have succeeded in overcoming the luxurious habits contracted by long and liberal use of an expense account.

Besides these two main attractions, Mr. Hardy, and a smoker, there will be committee reports and much other general business.

The Journal of the Association of Engineering Societies will probably discontinue publication with the December number, if the societies of the Association so decide. In such an event, it is our intention to issue a monthly bulletin similar to this, with an occasional larger number containing such technical papers as may have accumulated.

Let us hear what you think of such a scheme.

If you have any ideas which you think will benefit the society, this meeting will be a good time for you to unburden yourself. Maybe you can be shown the error of your way, and then again, maybe you have the one idea for which we have all been searching.

Are your dues paid to date? The Treasurer will tell you, if you ask him.

ENGINEERING CO-OPERATION.

The following circular has been received from the "Committee on Engineering Co-operation" and vain attempts have been made to condense it for your use. It can't be done; but a careful reading of every word, and then a review of the whole, will repay every member of the society.

And then a thorough discussion of the subject by the whole society might bring out additional suggestions of value, not only to ourselves, but to the profession as a whole.

It is worth reading.

Try it.

OBJECT. The object of this co-operative movement is the advancement of the general welfare of the engineers of North America, both individually and collectively, as distinct from the more purely technical work now so well performed by existing engineering societies.

This object is to be attained by a carefully planned and systematically executed program of education of the public by diffusion of information, mainly through the public press. It is desired to bring about a larger knowledge and better appreciation of the fact that the public welfare can be promoted, health and industry increased by a more general employment of engineering knowledge and skill.

MEANS. It is proposed to utilize as far as possible the facilities which may be provided by existing engineering organizations, at the same time strengthening and encouraging building up of local engineering societies, particularly where none now exist; also aid the national societies, working with these agencies along all lines which have to do with the best interest of the engineering profession.

COMMITTEE ON CO-OPERATION. In Order to carry out this plan, a committee has been formed, the individual members of which have become prominent from their enthusiasm and energy in promoting a better knowledge of engineering work. Each member of the committee is charged with the duty of interesting one or more societies in the movement, and in keeping the members informed of the progress being made.

CO-OPERATION WITH LOCAL SOCIETIES. The local engineering organizations for the greater part find that it is desirable to bring into their

membership all persons in the vicinity who are interested in engineering. They are in a position to be useful not only to their members, but in a peculiar degree to the entire community. Each should serve as a center for the discussion of local engineering and civic problems and should aid in the application to these problems of the lessons learned from engineering accomplishments in other parts of the world.

Every society and its members can profit by the experience of other organizations and can well afford to devote some time to the exchange of ideas and experiences such as should be practicable through this co-operative movement.

It is assumed that the secretary of each local society will keep in touch with this work, and will be able to supplement the efforts of the members of the Committee on Engineering Co-operation who are charged with the duty of looking after matters pertaining to that particular society.

CO-OPERATION WITH NATIONAL SOCIETIES. The national engineering societies differ as a rule from the local societies in that they are more exclusive in their membership, confining this to some particular branch of engineering, such as mechanical, electrical, etc. Many of these have local branches more or less affiliated or co-operating with the "inclusive" local societies. Arrangements are under consideration for bringing about a closer union in this educational movement so that there will be no duplication of effort.

HEADQUARTERS. For the present and until larger results have been accomplished, it is not considered necessary to have permanent headquarters, but the members of the Committee on Engineering Co-operation are expected to meet at any convenient point to discuss ways and means.

EFFORTS. There are three principal lines of effort which have been determined upon, these being in one sense branches, or a natural outgrowth of the general scheme for diffusing information. They are as follows:

- (a) Diffusing information on engineering in general.
- (b) Collecting and diffusing facts concerning the employment of engineers.
- (c) Collecting data regarding legislation affecting engineers.

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GENERAL INFORMATION.

Various efforts in the past have been made at different times and places to give to the public in simple and interesting form statements concerning engineering work, and to present the full significance of particular pieces of engineering. The most striking example of success in this direction is that of the Cleveland Engineering Society whose efforts have aroused the interest of some of the principal engineering organizations and lead them to similar action, the value of which has been demonstrated.

The obtaining and presenting information in form such as to be interesting to the ordinary reader and at the same time be correct, is an art in itself. It requires not only full knowledge of the matter, but the ability to set out in its true proportion and in striking form the one essential fact. Few engineers can do this, but enough have succeeded to prove that it is not impossible. Moreover the facts when thus presented to the public are widely read and thoroughly appreciated by thoughtful men and women, tired of sensationalism.

EMPLOYMENT. The matter of the employment of the engineer is of peculiar importance at the present time. The engineering colleges are graduating hundreds of young men into a profession apparently overcrowded. Each employer is besieged with applications. There has probably never been a time when so many competent engineers were out of work. There are innumerable employment agencies and some of the larger engineering societies have undertaken in more or less mechanical way the diffusion of information concerning employment. There is, however, no systematic treatment of the subject such as is creditable to a body of men of the high intelligence of engineers.

It may be said that there is just so much work to be done, and that each individual can best hunt for this in competition with his fellows. A little reflection, however, shows that the work to be accomplished is practically unlimited, the quantity being determined by the knowledge and appreciation by employers and by the public in general of the ability of the engineers to initiate and improve upon existing conditions. There is hardly a locality either in the city or the country where there is not now an existing opportunity for more and better constructive work or a manufacturing

process which can be improved in some big or little way. Counties and townships are contemplating or actually spending large amounts of money in roads and bridges, wasting a considerable proportion, because the men in direct charge have no conception that an engineer is needed. In short, engineering work is not limited by physical conditions, but purely by the mental attitude which in turn is dependent upon the amount of information. Every well written and widely read article concerning an engineering accomplishment, directly or indirectly leads to the employment of more engineers, thus profiting not merely the engineers but to a far greater degree the employers and the public.

The importance of the question of employment is therefore closely connected with the diffusion of information. It should be possible for the engineers of the country, acting through existing societies and by co-operative efforts to study the whole question of employment and to devise a system which will obviate much of the waste time and effort. **Every day lost by a man hunting a job is not merely a loss to him but is a greater loss to the community.** This loss consists not merely of his wages but more than this of the valuable results which flow from his employment. There is thus no one question presented to the engineers as a whole which is more important to the individuals and to the society at large than this of attempting to solve the employment problem.

That much can be done is shown by the results of concerted effort in other countries and other occupations. It is not to be inferred that we can immediately offer a remedy or make more rapid progress than has been in perfecting methods say in road building or water supply. Each year shows a decided progress worth the effort and yet we are far from realizing our ideals. In the same way with reference to employment, while we may never reach the ideal condition, yet by united, systematic effort we should be able to show a steady progress and gain worthy of the effort.

LEGISLATION. As citizens, the engineers as a body have been accused of neglect of duty in that they have not taken the lively interest in public affairs such as is demanded from men of their education and experience. Many of them have been trained in colleges or schools supported largely,

if not wholly, at public expense, and have received the use of investments made by the public reaching many thousands of dollars. In return for this the public has the right to expect a large and unselfish devotion on the part of the engineer to public questions in general. In some cases instead of giving more the engineer has given less of his time and thought to public affairs than has the average citizen. He has regarded it as unprofessional to take an active part in civic affairs and although typically a man of initiative he has left to the lawyer or business man matters upon which he should have the best experience and judgment.

The effect of this has been that engineers as a body have not only failed in their duty toward the public but legislation has not taken the constructive tone favorable to the activity of engineering necessary for public welfare. In fact almost the contrary has often been the case and great public works which should have been entrusted to the engineers are placed in the hands of less competent men who at best employ engineers merely in a subordinate position.

The fault, if any, rests at the doors of the engineers. The public has no way of changing these things unless upon information furnished by the engineering profession. If through undue modesty the engineers have neglected to take the public into their confidence, they must expect a corresponding neglect in matters of legislative and of executive action.

While this alleged defect cannot be corrected at once, yet there is little doubt but that the true condition should be studied and efforts made to diffuse information, particularly among engineers themselves, as to civic activities and legislation proposed and to have available for immediate use the facts regarding experience in other localities, such that proper information may be given at critical times to legislative or other committees who are considering a given subject. It is the rule rather than the exception that important matters of legislation are acted upon in such a manner that there is no opportunity for lengthy research or consultation, but for effective results there must be at hand certain needed facts. The same conditions also arise again and again in all parts of the country, but from ignorance of this fact engineers and their organizations

are again and again defeated in their altruistic efforts, learning perhaps when too late that elsewhere success has been attained through the use of information which should have been available.

CONCLUSION. The effort has been made in the above statement to present the fact that there is need and opportunity for well directed co-operation among engineers and their organizations, and that if this is carried out in an unselfish, broad-minded way, the benefits while coming primarily to the public will amply reward the engineers, individually and collectively, for their efforts. It is not to be expected that great or striking results can be shown at once. All great movements must be slow and patiently followed.

The Committee on Engineering Co-operation can take one step in the desired direction and if cordially supported can at least prepare the way for a more effective form of organization.

GENERAL NOTES.

Prosperity is here!

Everywhere there seems to be increased activity or rumors of activity. Eight draftsmen secured work in one office early this month.

To be sure there are eight others who haven't gone to work yet, but they have a better chance for the next job that appears.

Why not see that the secretary has a new and up-to-date record of your education and professional experience for use should there be an occasion for him to furnish a list of eligibles for a position for which you are especially fitted?

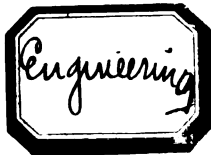
Blanks can be secured at Room 409, City Hall, or will be sent to you if you will mail your request to the secretary, Box 973, Portland, Ore.

MEMBERSHIP LIST.

Copies of the new membership list are promised for distribution at the meeting of December 16. Come and get one.

If you wish a copy sent to someone who is not a member of the society, mail his address to the secretary.

Each newspaper in the state as well as the mayor of each town will receive a copy, and others will be sent where they will do the most good.



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BULLETIN

No. 2.

Portland, Oregon.

January 8, 1916

THE NEXT MEETING

of the Oregon Society of Engineers will be addressed by

Mr. Charles Even Fowler, M. Am. Soc. C. E.

of Seattle, (need I add?) Washington.

Mr. Fowler will talk on

"The Architecture of Notable Bridges"

and will illustrate his lecture by the use of many lantern slides.

The meeting will be held in the

Public Library Building,

Thursday, January 13,

at 8:00 o'clock, P. M.

Don't miss it.

IF YOU ARE AN ACTIVE MEMBER

Enclosed herewith you should find a ballot, a plain envelope, and an envelope addressed to the Secretary of the Oregon Society of Engineers.

Mark the ballot according to the instructions printed upon it (and the dictates of your own conscience), by crossing out the names of those for whom you are not voting. Enclose it in the plain envelope and seal it, then put that in the addressed envelope, write your name across the back, and mail.

And do it now.

I never could understand why a man will lay away a simple little task like this waiting, till he has had more time to think it over. I'll admit that I have often done it. And then I find the blamed thing in my pocket the day after it should have reached its destination.

You know how it goes.

I usually pay my gas bill that way.

It doesn't spite the gas company a bit, and the extra day's use of the money does me no good.

Maybe some of our learned associates can explain the "why" of it. Such an explanation should be as interesting as a discussion of the probable value of "n" in Kutter's formula, or the equally interesting "n" in the formula for reinforced concrete beams.

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THE ANNUAL MEETING.

The Annual Meeting of the Society will be held on Monday, February 7, 1916, at a place and hour to be announced later.

It has been the custom in the past, to have a dinner on the occasion of the annual meeting, and to have a general "get together." The result of the ballot for officers for the ensuing year is announced, and in spite of the fact that some of the newly elected officials can't be restrained from making speeches, we usually have a mighty good time.

Be sure to reserve this one evening for the Society, and if you come across an extra dollar, it might be wise to lay it aside until this time, also. Of course you may not need it for the dinner, but if you don't, and feel disappointed at having no way to spend it, why not consider the suggestion of sending it to the Secretary of the American Association for the Promotion of the Metric System?

MR. HARDY'S LECTURE.

Those of you who failed to hear Mr. Hardy last month, missed hearing one of the most inspiring talks on civic duty that has been given before the Engineers of Portland for a long time.

It will require a good many lectures of this kind to awaken the engineers to the full realization of their obligations as citizens, for it is a sad and solemn fact that, as a class, engineers seem to take more interest in the latest method of solving the problem of the square ended plank in the rectangular room, than in a scheme for getting a trans-Pacific steamship line to operate from Portland, or inducing a large factory to locate here.

And why?

It is not on record that the "plank problem" ever got a man a better job, or helped him to hold the one he had; while by helping, even in a small way, to get a large industry to locate among us, the engineer shares in bringing prosperity to the community, even though no pay may come to him direct from such a plant.

The moral to which is: "Get in and boost."

Another interesting feature of Mr. Hardy's talk was perhaps the most artistic "dun" for society dues that has appeared in the English language.

If you are square with the Treasurer you certainly would have enjoyed it, and if you are in arrears—well, there is no telling what you might have done.

Let us hope that no one who reads this is in arrears, but if he is, that he will not long remain in such an unfortunate position.

It takes money to run a society.

Perhaps you get the point without having it stated more broadly.

OUR REPRESENTATIVES.**LETTER WRITING WEEK.**

Mr. D. C. Henny represented the Oregon Society of Engineers at the Second Pan-American Scientific Congress, held in Washington, D. C., from Dec. 27, 1915, to Jan. 8, 1916. His report of the doings at this congress is awaited with interest.

Our delegates to the Fifth Oregon Irrigation Congress were E. G. Hopson, O. Laurgaard, John H. Lewis, J. C. Stevens, and Walter H. Graves. It is probable that a brief review of the doings of the irrigationists will be one of the features of the meeting of January 13.

J. P. Newell and John W. Cunningham were delegates to the State Drainage Meeting held at Corvallis on January 4 and 5, 1916.

Mr. Newell's well known Prohibition proclivities fit him admirably for a position of this kind, looking as it does, to the further removal of moisture from what seems to some, to be an unnecessarily arid state.

Of Mr. Cunningham, perhaps the less said, the better, for he is likely to be our next secretary, and he could not then be blamed for retaliating.

A meeting of representatives of the civic clubs of the city was called by the Chamber of Commerce for January 5, to perfect plans for interesting everybody in the state in the writing of letters to Eastern friends during the week from Jan. 17 to 22 inclusive, to the end that some of these friends may spend their next vacation in Oregon. You know that "spending a vacation" means spending more or less money. And it is the money that we are after.

Our representatives at this meeting were C. S. Goldberg, C. E. Schindel-decker, George Garrett, W. H. Crawford and W. H. Graves.

Friday, January 21, is the day, and twelve o'clock, noon, is the time when every member of the Oregon Society of Engineers who is using the same name that he did "back east," and isn't afraid to let the friends of former times know his present whereabouts, is expected to line up at the gigantic mailbox with an armful of letters, and start them on their journey.

This letter-writing campaign is not, as some have formed the idea, to induce settlers to come to Oregon, but rather to swing the tide of tourist travel our way, and by so doing, to reap some part of the reward which will result.

You all know that we have many interesting attractions to show to our visitors, and that even if there were to be no chance that Oregon would be enriched at all by this campaign, we would yet have the satisfaction that we had done a good work in calling to the attention of our friends, the wonderful beauties of the Columbia River Highway, Mount Hood (providing the smoke isn't too heavy to permit it to be seen), the beautiful valleys of the Willamette, Tualatin and the Clackamas, not to mention the hundreds of other pretty little places within easy reach of Portland.

And besides these, there are Crater Lake and Celilo Falls, either of which is worth a long trip to see.

By all means write letters, and, if possible, fall into line with the rest of the Society on Friday the 21st to mail them.

BADGES.

Are you wearing the badge of "the square deal?"

If not, why not?

Are you one who deplores the un-American habit of Americans who "tag themselves with all the badges they can gain the title to wear"? Or are you in that still greater crowd that thinks it cannot afford the dollar-and-a-half necessary to get the badge away from the Secretary?

An even four dozen badges have been sold already, but that isn't enough when you consider that the membership of the Society is five times that number.

Here is a letter, or rather such parts of it as has been able to pass the censor, telling of the travels of one of our badges:

London, England, Dec. 2, 1915.

My Dear Stanley:

I must apologize for not writing you sooner to acknowledge receipt of the "cute little Oregon triangle," but have put that off from time to time in the hope (here several lines have been obliterated by the censor).

I left Vancouver as "supervisor of a special trainload of 'overseas mechanics'" bound for Liverpool, on July 18, in the year of our Lord, 1915. The triangle was forwarded by hand by a Scotch Mechanic on the special "overseas mechanic train" which followed a week later. This man missed the steamer in Liverpool and the badge was forwarded to me by mail by the manager of the Laborers' Exchange to "Somewhere in London." Through the carelessness of the clerk there it was returned to Portland and re-mailed to me here, finally arriving here November 28th, 1915, having crossed the Atlantic three times and still escaped the submarines. Perhaps it is like the man who was not drowned because he was born to be hung, and will eventually be blown up by a Zep bomb. However it is here safely and is much appreciated by the wearer. (Here some more

is expurgated for reasons best known to the censor.)

Will you please put me on the "gone but not forgotten" list of the Society which I had the honor to assist into being?

I am not likely to be in Portland before next Summer.

I am very busy flying all over London on most interesting Government work.

Kind regards to the President, Vice-Presidents, Past Presidents and any other of the "boys," hoping to see you next summer,

I am yours very sincerely,

J. H. MORTON.

You'll seldom find the Secretary without an extra badge or two that he will part with upon proper representation that you desire one, and when you stop to consider that the proper representation is only seventy-five cents for Juniors, and a dollar a half for Active Members, you will see that he isn't hard to convince in this matter.

THE ANNUAL BLUE BOOK.

Isn't there some one to whom you would like to have a copy of the membership list sent?

A fellow would have to be mightily stuck on himself not to be proud to see his name in this year's list, for there are some real engineers listed in it—a lot of them.

Oh, yes, there have been high grade men in the book every year, but it seems that there is a greater proportion of them in the new book than heretofore.

And "there's a reason."

It has been a pretty hard year for engineers, and some of those, who for various reasons have found their income unduly curtailed, cut off the luxury of belonging to an engineering society, rather than do without other things which seemed for the time, to be more necessary.

So, if your name is in the book, and you wish to have a copy sent to some one who is not a member of the Society, send the name to the Secretary. He will do the rest.

THE METRIC SYSTEM.

How many of you are aware that the fundamental standards of length and mass for the United States are the meter and the kilogram, and from these are derived the yard, pound, gallon, and bushel with all their multiples and divisions?

There are a lot of other interesting things about the metric system of weights and measures which might be told here, but what's the use? You know them already.

One thing, though, will bear repeating; and that is, that men who have worked with the metric system in foreign countries, almost without exception, come back to the inches, and feet, and pounds, and gallons with a kind of dread, and a longing to see the Metric System more universally adopted in the land where they find other conditions favorable for living.

On November 12, 1914, the Oregon Society of Engineers appropriated a small sum towards the founding of an Association for the promotion of the Metric System, and Mr. J. C. Stevens was appointed temporary secretary.

Unfortunately for this Association, Mr. Stevens secured a position out of town, and the business of the office was turned over to the Secretary of the Oregon Society of Engineers.

The Association is small in numbers, but is rather vigorous for one of its size and age.

Admission is secured by paying a dollar to the Secretary, and receiving therefor a membership card. The money received from membership is used to pay for postage and incidentals in furthering the interests of the Association.

If you have a dollar that you have been saving to buy a silk hat for a native of Madagascar, send it to the Secretary of the American Association for the Promotion of the Metric System, and he will put it to good use in spreading the gospel of good sense in weights and measures, among the benighted heathen of the U. S. A.

AN EXERCISE IN MEMORIZING.

This convenient little table, which tells nearly all that you need to know about the Metric System is printed on the backs of membership cards of the association mentioned in the preceding column.

It is reproduced here for your use.

See how long it takes you to memorize it, and then see if you can perfect your knowledge of the good old English system in less than four times as long.

THE METRIC SYSTEM

The fundamental unit of the metric system is the **METER** (the unit of length). From this the units of mass (**GRAM**) and capacity (**LITER**) are derived. All other units are the decimal subdivisions or multiples of these. These three units are simply related, so that for all practical purposes the volume of one kilogram of water (one liter) is equal to one cubic decimeter.

PREFIXES	MEANINGS	UNITS
MILLI-	= one thousandth $\frac{1}{1000}$	METER for length
CENTI-	= one hundredth $\frac{1}{100}$	GRAM for mass
DECI-	= one tenth $\frac{1}{10}$	LITER for capacity
DENA-	= one 1	
HECTO-	= one hundred 100	
KILO-	= one thousand 1000	

The metric terms are formed by combining the words **METER**, **GRAM**, and **LITER** with the six numerical prefixes.

LENGTH		
10 milli-meters	= 1 centi-meter	cm
10 centi-meters	= 1 deci-meter	dm
10 deci-meters	= 1 METER (39.37 inches exactly)	m
10 meters	= 1 deka-meter (10 times)	dam
10 deka-meters	= 1 hecto-meter	ham
10 hecto-meters	= 1 kilo-meter (about $\frac{1}{2}$ mile)	km

MASS		
10 milli-grams	= 1 centi-gram	cg
10 centi-grams	= 1 deci-gram	dg
10 deci-grams	= 1 GRAM (about 15 grains)	g
10 grams	= 1 deka-gram (10g) or dag	
10 deka-grams	= 1 hecto-gram (100g) or hkg	
10 hecto-grams	= 1 kilo-gram (about 2 pounds)	kg

CAPACITY		
10 milli-liters	= 1 centi-liter	cl
10 centi-liters	= 1 deci-liter	dl
10 deci-liters	= 1 LITER (about 1 quart)	l
10 liters	= 1 deka-liter (10l) or dal	
10 deka-liters	= 1 hecto-liter (about a barrel)	hl
10 hecto-liters	= 1 kilo-liter	kl

The square and cubic units are the square and cubes of the linear units. The ordinary unit of land area is the **HECTARE** = 10000 square meters (about 2.5 acres).

PROCEEDINGS.

Minutes of the Meeting of the Oregon Society of Engineers in the Ladies' Dining Room of the Portland Chamber of Commerce, Thursday, December 17, at 8:00 P. M.

There were present 38 members and guests.

The minutes of the meeting of November 18 were read and approved without change.

* * *

President Wm. S. Turner introduced the speaker of the evening, Mr. George E. Hardy, executive secretary of the Portland Chamber of Commerce, who, in a talk of about half an hour's length, urged the engineers to take a more active part in the affairs of the community. He gave some very interesting figures about the development of other cities, and made some prophecies regarding the future of Portland.

* * *

Mr. O. Laurgaard, delegate to the Western States Irrigation Congress at San Francisco, gave a verbal report of the meeting, and told what might be accomplished in the West if the "Jones Bill," now before Congress, were to pass. He said also that there is to be a future meeting of the Irrigation Congress in Washington, D. C., and that the Oregon Society of Engineers is entitled to a delegate.

Mr. Lundgren questioned the right of the Federal Government to enter into such agreements as are anticipated by the Jones Bill.

* * *

Mr. Harris, of the Oregon Agricultural College, asked for the co-operation of the members of the society to the extent of contributing to the college periodical, and subscribing for it as well, and suggested the combination of the college publication with that of the society.

The subject was discussed by F. O. Brolli, C. E. Condit, Leonard Lundgren, J. R. Thompson and W. H. Crawford.

Upon motion duly made and seconded, the matter of a publication for the society was referred to the executive board with full power to act, but that the board seriously consider the idea of co-operation with the students of the Oregon Agricultural College, and that if possible, favorable action be taken.

Further discussion was unfavorable to adding another technical journal to the many that are now in our files.

* * *

The president announced adjournment for refreshments, and a pleasant hour was spent with sandwiches and coffee, and further informal discussion of the main subjects of the evening.

ORRIN E. STANLEY,
Secretary.

EMPLOYMENT DEPARTMENT.

Several new registrations have been received from men desiring to better their condition financially.

The openings have, however, been as scarce as usual, but you know, such conditions can't last much longer.

Even the longest night must be followed by its morning, and we hope that when the end of the present shortage of jobs begins to appear, we may have on file in the Secretary's office for the benefit of those employers who are seeking the best engineering skill that the country affords, a list of every man in the Society who is not perfectly satisfied with his present position.

We can't promise jobs, nor can we promise to find just the kind of assistants that may be desired, on the spur of the moment, but we will use every method that we can think of, to bring the right man to the right job at the right time.

To find work for the idle is not the only function of this department of the Society, though it is practically all that is being done at present. We consider it an equal benefit to mankind to help the fellow who is plugging along in work for which he is not fitted, and in which he takes no interest, to get into some line where the work will be a pleasure to him, and where he can hope to rise to a place of responsibility; and to what is better from some points of view, a position near the top of the pay-roll.

Ask for registration blanks now. The Secretary has them.

1. INSTRUMENTMAN and DRAFTSMAN. Age 30. C. E., Ohio Northern University; 1910 Draftsman Oregon Trunk Ry.; 1910 to date City of Portland as instrumentman and draftsman on construction of streets and sewers. Salary \$110.
2. HIGHWAY or RAILROAD CONSTRUCTION or PRELIMINARY. Age 32. C. E., Ohio Northern University. 1903 to 1915 chainman and rodman in eastern states; 1906 to 1912, Assistant Engineer Railway Dep't. P. R., L. & P. Co.; 1913, on irrigation and railroad work for various firms; 1914, Oregon Highway Commission as resident engineer. Salary \$155.00.
3. INSTRUMENTMAN and DRAFTSMAN, RAILROAD. Age 33. 1907 to 1913 rodman with S. P. & S. Ry.; 1913 and 1914 instrumentman with same company. Has done map drafting and valuation work during a part of this time. For further information about the above men and others who can do anything—yes, ANYTHING—let me repeat it once more—ANYTHING that engineers anywhere can do, address the Secretary, Box 973, Portland, or call him on the City Hall phones. Some of the men now registered, are available at once. Others are engaged, but there are only a few that can't be weaned from their present occupations if there is anything worth while in sight.

APPLICATIONS FOR ADMISSION.

The following abstracts from applications now on file in the Secretary's office, are submitted to the membership of the Society for approval.

URDAHL, HENRY P., 217 Floral Avenue, Portland, Oregon. (Age 26. Born Spokane, Washington.) July 1909 to date with O. W. R. & N. Co., as axeman, rodman and instrumentman.

Endorsed by E. D. Roberts and A. E. McKennett.

HENDERSON, S. E., Coquille, Oregon. (Age 28. Born Olympia, Washington.) (University of Oregon, Major in C. E. 1908-12.) 1907-8, land surveying in Hood River and Wasco Counties; 1908, Deputy County Surveyor, Hood River County; 1909, Deputy County Surveyor Linn County; summers 1909-10 and 1911, Deputy County Surveyor and assistant to private surveyors; 1912, Assistant City Engineer, Tillamook, Oregon; 1913, City Engineer, Tillamook, Oregon; 1914, General Engineering Practice; 1915, City Engineer, Coquille, Oregon.

Endorsed by D. L. Buckingham and P. M. Hall-Lewis.

GRONDAHL, A. K., 3037 62d Street S. E., Portland, Oregon. (Age 30. Born Portland, Oregon.) (Augsburg College, 1903-4.) 1913-13, chainman, rodman and inspector, O. W. P. & Ry. Co.; 1903, chainman, rodman and instrumentman White River Extension Missouri Pacific Ry.; 1904, Superintendent Court House foundations, Clatsop County, Oregon; 1904-5, chainman, rodman and instrumentman O. W. R. & N. and S. P. Companies; 1904, Superintendent of buildings for E. M. Lazarus, Architect; 1905-8, Resident Engineer, S. P. & S. Ry., Maegly Junction; 1908-9, in charge of party on subdivision of 13,200 acres Grand Ronde Reservation for W. A. Grondahl, Cons. Engr.; 1909-12, chainman and instrumentman for R. S. Greenleaf; 1913-14, Inspector streets and sewers, City of Portland; 1914, Deputy County Surveyor; 1915, Resident Engineer Foster Road, Multnomah County.

BRAY, MAURICE A., 1181 Commercial Street, Portland, Oregon. (Age 27. Born Winona, Minn.) (University of Mississippi, 1907, B. E.) 1907 to 1912 with I. C. R. R. as Engineering Apprentice, chainman, rodman and instrumentman. August, 1912, to date, resident engineer and draftsman in tax and right of way department of the P. P. & L. Co. Endorsed by A. D. Vance and F. J. Bernau.

STARR, FRANK HINES, Box 551, Rainier, Oregon. (Age 28. Born Baltimore, Md.) (Attended schools and college at Petrograd, Russia. Degree, A. B.) 1913, H. B. Porter & Son Co., Norwich, Conn., detailer; 1914 and 1915, B. B. Ostlund, Cons. Engr. and Architect, Marshfield, Ore.; fall of 1915, Columbia River Door Co., Rainier, Oregon, Draftsman.

CARMICHAEL, J. T., 739 Glisan Street, Portland, Oregon. (Age 25. Born Augusta, Montana.) (1907-9 at University of Missouri, 1909-10 at University of Washington.) 1910-12, Computer, City Engineer Department, City of Seattle; 1912, Assistant Engineer The Uplands Ltd., Victoria, B. C., Municipal Improvements; 1912-13, Draftsman with Canadian Northwest Steel Co., Vancouver, B. C.; 1913, Instrumentman Columbia Valley Orchards Co., Sinclair, B. C.; 1913, Foreman, Montague-O'Reilly Co., Portland, Oregon; 1914, Engineer T. P. T. & T. Co., Seattle, Washington; 1914, Inspector, Cedar River Dam, Cedar Falls, Washington; 1914-15, Foreman Nettleton-Bruce-Eachbach Co., Seattle, Washington; 1915-16, Engineer on appraisal work with the T. P. T. & T. Co., Portland, Oregon.

Endorsed by Albert V. Emery and L. F. Harsa.

Any information in the possession of any member, that will assist the Membership Committee in properly classifying these applicants for membership should be mailed at once to the Secretary.

In case no objections to any of these candidates for membership are received before February 7, 1916, the Executive Board will cast the ballot of the Society for the applicants.

ORRIN E. STANLEY, Secretary.



Looking for a badge?
Send a dollar and a half to
The Secretary, Box 973,
Portland, Oregon,
and you'll not need to "look"
much further.



Members will please keep the Secretary advised of changes of address in order that they may get notices of meetings, and other announcements promptly.

UNIVERSITY OF ILLINOIS LIBRARY
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BULLETIN

*No. 3**Portland, Oregon**February 1, 1916*

Annual Meeting

The Annual Meeting of the Oregon Society of Engineers will be held at the Portland Chamber of Commerce, Monday evening, **Feb. 7, 1916.**

Members will assemble on the seventh floor at six o'clock for an informal dollar dinner, which will be followed by the annual business meeting.

At 8:15 the meeting will adjourn to another room, where the Finley Moving Pictures of Wild Animal Life in Oregon will be shown to the members, their wives, and friends.

Be sure to see these pictures. They are good.

TOO MANY TECHNICAL PERIODICALS?

Have you too many technical magazines in your files?

Here is a letter from Miss Dixon, Technical Librarian, which offers a chance for you to relieve your shelves of some of this congestion:

"The technical department is filling out a set of back files of technical periodicals for the Benson Polytechnic School. If any of your members have old numbers which they no longer need, we shall be very glad to have them to use for this purpose.

Very truly yours,

"VERA M. DIXON."

"Technical Librarian."

Help yourselves by helping others, and give to the school those papers which you haven't read for years and which you never expect to look inside of again.

RIP VAN WINKLE AWAKENS.

Skinner Mulvey says: "I have been settin' on the threshold of prosperity so long that I've worn out the seat of my breeches. I think the door's got a time lock and the clock's run down."

The Oregon Society of Engineers has been talking about a permanent headquarters so long that many of us are beginning to think it's a bluff. We are getting used to the feeling of the slats in the chairs at the library, and if the anti-tobacco league is as successful as our prohibition friends, we will no longer have any desire to roll back in a Turkish rocker in our own club-room, light a fragrant El Regretto, and absorb ourselves in "Der Verein Deutscher Ingenieure."

However, we may still have hope. Mr. Spalding or the head janitor, or whoever is boss of the Spalding building, has found some empty rooms that just fit the requirements of the Society, and they like our looks so well

that they have made an unusually generous offer for the use of these rooms. One room, 14 by 20 feet, would be used continuously as an office, committee room, reading room and general headquarters, and we would all carry keys to this room. Another room about 20 by 40 feet could be used as needed for our meetings.

If we take these rooms, there are some of our members who have the presumption to think that our friends, the manufacturers, the material men, and the downtrodden contractors will come through with some odd furniture, pictures and literature that will make the rooms attractive. Also with our new Journal we will be able to secure by exchange the current periodicals, transactions, and books that will make the library feature an important one to our members.

Any organization has justification to exist firstly from the service it renders its members. This talk about educating the public and elevating the profession sounds very well at an annual banquet from some Distinguished Member whom we all know hasn't been out to the Society meetings for years and wouldn't be out now if he hadn't been asked to speak. As a matter of fact, when we get over the momentary enthusiasm inspired by Distinguished Member's remarks, his talk doesn't go very far in separating us from the Five Dollar Bill for our back dues. What we need is to make the Society so valuable to its members that every doctor and lawyer who ever held a picket during his summer vacations will want to turn engineer so he can join.

It has been whispered about that the Society has in the past been a bit too formal. That while the papers presented at the Public Library meetings made enlightening reading, they were not in the surroundings calculated to inspire good-fellowship and the human interest that will induce us all to leave our family and fireside for an evening. In short, our attendance has not been as large as it should be, and some think that it would be

larger if we had a place where we could come early and stay late, could smoke, could have coffee and sinkers after the meetings occasionally, and could kick up our heels a little without having some assistant librarian kick us out.

We understand from our Treasurer that the Society now has a nice surplus on hand, and that the annual income is enough to take care of the proposed headquarters without handicapping our present activities. With our own rooms we would save the occasional rental of space at the Commercial Club or elsewhere for our social gatherings, and in other ways that have been suggested, could reduce the expense to the Society. However, if there is a genuine demand for club rooms we do not think that there should be quibbling over the cost, as the inducement to new members will largely take care of the expense.

The question of Society headquarters will be brought up at the annual meeting on February 7. In the meantime the members should be thinking it over. If you want to see the rooms which are under consideration, go down to the Spalding building and ask Gus the Starter to tell you how to get there.

FARMERS' WEEK AT CORVALLIS.

The farmers of Oregon have formed a habit of each winter taking a week off, leaving the hired man in charge of the "stock," and together with their wives hiking for Corvallis to attend "Farmers' and Home-makers' Week." We wonder how long before Engineers will form the same habit, and make an annual pilgrimage to their "Alma Mater" to study the latest hybrid Eddy Currents and learn the best way to milk a centrifugal pump.

Our delegates to "Farmers' Week," J. P. Newell and John W. Cunningham, are said to have let their whiskers grow, stuck straws in their mouths and acted like regular rustics. They

report that the principal interest to Engineers was in the meetings of the Oregon State Drainage Association.

Due to the generally flat land surface of the Willamette Valley, the heavy soil and the unevenly distributed rainfall, thorough drainage by tile and open ditches is the most important need for future agricultural development. The difficulty in the past has been in awakening the land owners to realization of their own needs. Since the organization of the Drainage Association, encouraging progress has been made in this direction, and several drainage projects are now under way.

Of the addresses at the drainage meetings, the most notable were by Prof. E. R. Jones, of the University of Wisconsin, and Mr. Percy A. Cupper, Assistant State Engineer. Professor W. L. Powers, the Secretary of the Association, has material for a future paper which would be of great interest to the Oregon Society of Engineers. Mr. Cupper's paper appears in the accompanying issue of the Journal.

PERSONAL MENTION.

Mr. E. F. Dunlap may now be addressed at 1610 Fowler St., Portland.

Mr. J. G. Hunter and wife are spending a few weeks in Southern California during the cold snap in Portland.

Mr. F. G. Lister has been appointed mechanical engineer of the El Paso Southwestern System at El Paso, Tex.

Mr. W. F. Lehfelt, who spent the summer on the international boundary survey at Lake Megantic, Quebec, is now at 866 Island Ave., Milwaukee, Wis.

Mr. A. C. Rose, roadmaster, Astoria, Ore., would like to receive applications for a possible opening for a good instrument man. The salary will probably be \$100 per month and field expenses.

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BULLETIN

No. 11

PORTLAND, OREGON

November, 1916

Our Next Meeting

Capt. Geo. S. Edmondstone will meet you at the Rose City Park Club House, at East 57th street and Sandy Boulevard, Thursday evening, November 23, at eight o'clock.

Now, *please* don't tell us that you have forgotten the place, nor the time; but be there; for the Captain has some pictures of the proposed O.-W. R. R. & N. Regrade which he will show to us, and he will not only tell of this work which is of such vital interest to the northeastern section of the city, but he will talk of Grade Crossing Elimination in other cities from the humanitarian point of view, as well as from the technical side.

The O.-W. R. R. & N. Regrade will cost about \$600,000, and will consist of the lowering of the tracks of the Railroad Company from East 32d street to East 92d street; building seven bridges over them, and constructing the proper approaches and other necessary works.

The lecture will not only be of great interest to all engineers, but will give those property owners who are directly affected a chance to learn at first hand just how the problem will be handled.

Don't fail to be on hand at eight o'clock,

**THURSDAY, NOVEMBER 23, at the
Rose City Park Club House,
East 57th Street and Sandy Boulevard.
Take a Rose City Park Car.**

OFFICERS

Wm. S. Turner, President
 E. G. Hopson, 1st Vice President
 J. C. Stevens, 2d Vice President
 Phillip H. Dater, 3d Vice President
 Orrin E. Stanley, Secretary
 Henry M. Morse, Treasurer

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 J. P. Newell, Legislative Committee
 D. C. Henny, Public Relations Committee
 F. A. Naramore, Civil Service Committee

THE CITY MANAGER.

That one of the brightest openings for the civil engineer lies in the position of City Manager, seems to be very generally conceded.

Some figures given in a recent number of the Bulletin of the Affiliated Engineering Societies of Minnesota have a tendency to further strengthen this belief, and they are given in part, below.

There are 73 cities in the United States and Canada operating under the City Manager form of government, the total population of which is 818,000.

Of these 32 have a population of less than 5,000 and 23 have a population of more than 10,000.

The salaries of 36 of these managers is given, averaging \$2,900.00; the average population of these 36 cities being 12,500.

The average population of the 73 cities is 11,200.

The minimum salary reported is \$600 for the manager of Largo, Fla., a town of 291 people. The highest of the 73 is paid to the manager of Dayton, Ohio, a city of 116,600 people, the salary being \$12,500.00.

From a purely monetary point of view (which I will admit is of very little concern to the average engineer) it would seem that some of these places would be worth "going after."

METRIC WEIGHTS AND MEASURES

You may not know it—in fact it is not very generally known, and your ignorance will not be held against you—but some time ago the Secretary was entrusted for a time, with the duties and responsibilities appertaining to the office of the Secretary of the American Association for the Promotion of the Metric System.

Like many another position, the duties are what the person holding the office chooses to make them, and in this case they have been subordinate to the requirements of the City of Portland, and the Oregon Society of Engineers, both of which organizations have honored the Secretary with their confidence in varying amounts.

But this is digression.

In his capacity as an ordinary citizen, the Secretary strolled into one of the local engineering instrument stores and asked for a pocket tape divided in millimeters.

The obliging clerk turned to the wall case and began to look through it in a dazed sort of way. As he did so, he slowly remarked: "Millimeters; let's see; what are millimeters used for anyhow?"

Upon being informed that they were a measure of length, a light seemed to dawn upon him, for he said: "Oh, yes, that is that French system, isn't it?"

"Yes, the system is used in France and many other countries; thirty-eight in fact, having adopted laws making its use obligatory," he was informed.

Whereupon he remembered having had a call for something similar some time ago, and was sure that no such devices of the devil were carried in stock.

"Efficiency" seems to be the watchword of modern engineering works, and yet the time and effort that is daily wasted in juggling feet and inches and pounds, ounces and grains, is enormous.

And why is it done?

Simply because of the horror most of us have of making the change. Something like having a tooth filled, perhaps. But the change is accomplished more easily than is the dental operation, and the result is more satisfactory.

Some years ago a young engineer went into Mexico as thoroughly ignorant of the Metric System as is the average American who has reached the voting age.

He had a letter to the chief engineer of one of the large railroad systems, and as there was much work to do and few to do it, he was taken into the drafting room immediately, and turned over to the chief draftsman to keep busy until the rest of the party reported for duty.

It was with fear and trembling that he followed to a table on which was unrolled a profile. Yes, his worst fears were realized. The profile was drawn to the dreaded metric scale.

He was a long way from home, and in a land where George Washington was little known; but his early training had been that honesty was the best policy, so he blurted out:

"Mr. Bentle, I don't know a thing about the Metric System."

And Mr. Bentle assuringly remarked:

"You don't have to know anything about it. Just go ahead. You know how to use a scale, don't you?"

Well, in ten minutes, this stranger in a strange land, with a strange system of measures, was merrily scaling quantities from a profile drawn to a metric scale, and he liked it better than he did the scales that he had used in "the States." And the more that he used the new (to him) system, the better he was pleased.

There is nothing to learn. Just begin, and go ahead.

One of the greatest sources of fear of the Metric System is the method of presenting it in the text books used in the public schools, where every metric measure is stood up alongside a string of decimal equivalents that is appalling to the mind of youth. Yes, and of mature years as well.

When one measures a thing and finds that it is ten and a half inches long he does not care what part of a cubit it is, nor how many of these will be required to make a furlong; nor does he give a hang how many cubic yards there are in fifty cubic meters. The work is being paid for by the cubic meter, anyhow, and yards have no

more to do with it than have cubits. And yet, perhaps Solomon would have made things hum around the temple for which he is justly famed, if some one had asked him to reduce his structural units to feet and inches, and the dimensions of the plot upon which it was built, to feet and tenths.

It is reported that the National Wholesale Grocers Association is working for the adoption of the Metric System. Will engineers, with all their boasted efficiency, and progress, and individuality of thought and action allow the grocers to take the lead in one of the greatest time-saving devices available? It looks like it, doesn't it?

All the more honor to the grocers, then, if they succeed where the engineers have fallen by the wayside.

COMPENSATION.

At times the path of the Secretary seems to consist of only jagged rocks, overhung with briars, but occasionally there comes a stretch which leads along a smooth concrete walk between rows of fragrant roses. That these pleasant stretches are short is probably for the best, as otherwise the Secretary might swell up with pride, and explode with disastrous results to the surroundings.

One of these pleasant places was marked by the receipt of a letter from the editor of the Engineering Record which is reproduced below.

Dear Sir:

The August-September number of your "Bulletin" has just reached my desk. I have read it and have been struck by the interesting style in which it is written.

May I extend my congratulations?

We are taking the liberty of reprinting the article on "Advertising," giving your Bulletin credit.

Very truly yours,

E. H. Mehren,

Editor.

And, by the way, more people have spoken of having seen this article in the Engineering Record than in the Bulletin.

CHRONICLES OF AUGUSTUS I.

Now it came to pass in the fourth year of the reign of the great and good ruler who is called Wilson, that the nation did sorely feel the need of ships to carry across the great waters such of the multitude of stores as were called for by certain warring nations. And this need of vessels was made manifest even unto the cities of the western coast of the nation, to the end that many new and hustling companies for the building of ships were hurriedly formed, and great yards were laid out, and the shores of the coast cities did hum with the activity thereof.

Now in the city of Portland, whose ruler was Albee, there had for years been hard times, and many workers there were who could find no work, and there was not wherewith to pay those who fain would toil for their daily bread; and many there were who fled from this city to far places where they could no longer hear the cries of their children who hungered, nor the wailings of their wives who had "nothing to wear"; until good men were scarce, yea, verily, they were few and far between, and such as remained, found it profitable to forego their life-long custom of spending the summer by the seaside, and in lieu thereof to labor vigorously at the building of ships, though heretofore they wot not what end of a boat was a "bow," nor what was the "lee" thereof.

Among those who sought to replenish their depleted exchequer in the yards of the builders of ships was an engineer who is called Augustus.

Now, the master being sorely pressed for the need of a real man, agreed to pay Augustus a fair wage, and to treat him as was befitting his learning and rank, but that is neither here nor there. But I say unto you that Augustus was there. Yea, verily, was he on the job; and when he worked, he worked for his master and for none other, as was his wont.

And in the morning of the fifth day did Augustus look out of his window

in the room where he was wont to labor, and did see many men digging in the rocky shore of the river whereon was the shipyard. And as they did dig, they did ever and anon roll heavy timbers into the trenches which they had prepared for them, and did roll them out again with much toil and sweat, for the trenches were not yet deep enough. And seeing this, the ever alert mind of Augustus did reason as follows, to wit: Verily, there is being much muscular energy wasted. For to continually roll timbers into a trench which has not been properly prepared and then to roll them out, lo, these many times, shows poor headwork. "Yea, verily," thought Augustus, "these men are strong in the back and weak in the head." And it was so.

Then did Augustus wax exceeding wroth, and he did go to his master and did hold converse with him in this wise, saying:

"Most worthy master, seest thou these men heaving heavy timbers into these trenches and out again, many times?"

And his master saidst unto him, "Yea, verily, I see them. They have done thus since the sons of Noah fashioned the Ark. Is it not well? Why butttest thou in, Oh, son? What knowest thou of ships? Go thou back to thy drafting board and hump thyself over it until thou hast made the tracings which I commandest thee to make."

But Augustus would not.

"Oh, Master," said he, "with a level and rod can I save thee the time of these many men to an extent of many times the poor stipend which thou givest me. Let me try for the placing of but one timber and I will prove to thee that the sons of Noah were not onto their job, as are we of modern times. I will give these men the grade of each part of the trench which they do dig, to the end that when the timber shall be rolled into it, it shall be at all points the right and proper height, and no boulders will be projecting into it; and they can go to the next trench at once without hoisting the timber out of the hole again as has been their custom."

Then did the master think that per-

chance there might be a grain of sense in what had been told to him by Augustus, and did speak in this wise, saying:

"Go thou to the shed and bring hither the level and rod, and try thy scheme on the next trench, and if it be as thou hast said, then shalt thou help to set all the timber for the ways of this ship."

And Augustus did as his master commanded him, and throughout the day sounds strange for a shipyard were heard at this place, for ever and anon did Augustus lift up his voice and roar out "Rod up there! Down two-tenths!" until at the close of day there were in place all the timbers that were required, and the master was greatly pleased, for little had he thought that so much work would be done in even thrice that length of time.

And he did take counsel with Augustus on many subjects, and Augustus did bring to the solution of the problems of building a ship the great store of knowledge that he had acquired in other lines. And it was well.

Now when at length it became necessary for Augustus to hie himself back to his "daily grind" his master was sore perplexed, and cried aloud for another to fill the place which was vacant.

And he did take counsel with himself in this wise, saying, "Lo! this man was a good man, and I procured his services through the Oregon Society of Engineers. Therefore will I appeal again unto them that they may send me another like unto him, that my work may not suffer, but may prosper.

Therefore did he call upon the Secretary, who did send first one man and then another until at last one was found who could perform the work to the satisfaction of the master builder; and the master was well pleased.

WEAR A BADGE

Have you ever given any thought to the question, "Why is the average engineer poorly paid?"

If you have not, you are the exception that proves the rule. For all the rest of us have.

I shall not attempt to give all, or even a majority of the reasons which

occur to me, for you wouldn't read them were I able to get them all printed. But I should like to call your attention to one or two which lie within your power to remedy, to some extent at least.

Many men are engaged in engineering work, not because they think that they can do the public a better service there than elsewhere, but because they can, for the time being, make a little more money than they can in other lines which they hope later to enter. And yet these same men loudly bewail the low wages that are paid to engineers and like the boy who was rear chain-man for two weeks, they "almost wish they hadn't taken the time to learn the business."

To these men I have nothing to say (at least nothing mallable) and perhaps it is as well, for they do not read the Bulletin anyhow.

But to those other men, who have spent the best years of their lives in getting the fundamentals of engineering and in further study and practice to perfect themselves in the profession which they have chosen as a life work, to them I would say "Advertise."

And by advertising I do not mean to carry a full page ad. in the Sunday paper, nor even that you should use a card in a technical publication, though that is much more to the point; but I mean that an engineer who is in love with his work should lose no opportunity of telling others that he is an engineer, and if even then they do not know that his work is not hot and greasy, it might not be amiss to explain in a few well chosen words, something of the nature of his profession.

No, you will gain nothing by crowding against your neighbor in the street car and saying, "I am an engineer; what are you?" A little blue and gold triangle pinned to your vest will do much better service.

This triangle will say "Oregon Society of Engineers," and the more of them that are to be seen, the greater will be their value as an educational factor.

A dollar and a half will cover the expense, but that amount will not be a

measure of the satisfaction to the wearer.

Why not mail a check to the secretary today?

Be sure to state whether you prefer a button or a pin. They are both the same price.

Silver badges for Juniors are six bits.

THE MALODOROUS GARBAGE CART.

One can now pass a garbage wagon at fairly close range without becoming asphyxiated by foul gases.

The recent mention of garbage collection control by the Bulletin is not responsible for the improvement, however; much as we would like to claim that honor.

So far as one can determine, the wagons are operating on the same old schedule, but the cold weather is giving us some relief from the stench.

Perhaps now that the Council has finished with the budget and the jitneys, it will have some time to devote to minor matters, such as the public health and comfort, among which may be mentioned that of daylight garbage collection.

MORE BOUQUETS

Another compliment came from closer at hand, when a friend asked the Secretary if he expected to get out a crowd with the kind of meeting notices appearing on the front page of the Bulletin, remarking by way of explanation, that it looked "a good deal like an Oregonian editorial asking voters to support Hughes."

From his tone, there is no doubt that he intended this as a "slam" but even at that—well you can draw your own conclusions. Needless to say, the present notice of the meeting is slightly different in style.

Minutes of the regular monthly meeting of the Oregon Society of Engineers at the Chamber of Commerce Friday evening, October 20, 1916, at 8:30.

More than eighty members and guests were present at the meeting of the Society on October 20th on the fifth floor of the Chamber of Commerce.

The minutes of the meeting of Sept. 22 were read and approved without change.

President Turner asked Mr. Brolli to

make an announcement of the bi-weekly noonday luncheons in connection with the other technical societies. Mr. Brolli said that arrangements had been made to begin the series Wednesday, Oct. 25, at the Oregon Hotel.

The President then introduced Mr. Frank F. Sinks, Engineer and Sales Manager of the Pacific Coast Steel Works of Seattle, who spoke entertainingly of the work of the mills with which he is connected, and exhibited lantern slides and moving pictures showing the mills and furnaces at work.

A discussion of the subject was participated in by Mr. Brolli, Mr. Edmondstone, Mr. Morse, Mr. Reed, Mr. Lazell and others.

A unanimous vote of thanks was given to Mr. Sinks for the evening's entertainment.

President Turner called for an expression of opinion as to whether the members preferred to meet on Friday or on Thursday evenings. As the greater number seemed to prefer Fridays it was decided to continue to meet on Friday evenings.

The following resolution was read by the Secretary:

Whereas, it appears that Oregon's road laws are the result of patchwork legislation, and that there is great need for the adoption of a complete, concise, workable road code, and

Whereas, such road code should be based upon the best experience and practice of other states and counties in conducting similar work, and

Whereas, the United States office of Public Roads, Washington, D. C., has for years been collecting and digesting the road laws of various states and counties, and through its agents has studied the results accomplished under such laws, and is ready, willing and able to make this information available to the state of Oregon upon request, therefore,

Be it resolved, by the Oregon State Association of County Judges and Commissioners, that we do hereby request the United States office of Public Roads and Rural Engineers to prepare a suggested draft of a road code, to meet Oregon conditions, and to send one or more experts, familiar with such legislation in other states and counties, to explain its provisions to the Oregon Legislature, or an appropriate committee thereof, which will consider such matters in January, 1917.

It was moved by Mr. Kelser and seconded by Mr. Morse that the Oregon Society of Engineers endorse these resolutions.

After a discussion of the motion by Mr. Dater, Mr. Kelser, Mr. Edmondstone, Mr. Strayer, Mr. Stanley and others, it was carried with one dissenting vote.

President Turner said that he would turn the matter over to the Legislative Committee of which Mr. Newell is chairman.

There being no further business the meeting adjourned in due form.

ORRIN E. STANLEY,
Secretary.

20.6
RB

Engineering

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MAR 17 1917



BULLETIN

No. 12

PORTLAND, OREGON

December, 1916

Electrical Night

You are invited to attend the
Electrical Night
of the

Oregon Society of Engineers
Friday evening, December 22nd, 1916
at eight o'clock, in the
Ladies' Dining Room of the
Portland Chamber of Commerce
8th floor, Oregon Building, 5th and Oak Streets

Mr. O. B. COLDWELL, Gen. Supt. P. R. L. & P. Co., will speak of "Recent Achievements in the Electrical Field".

MR. R. R. ROBLEY, Operating Engineer, P. R. L. & P. Co., will discuss "Historical Phases of Electricity" with special reference to local conditions.

MR. W. H. LINES, Commercial Engineer, P. R. L. & P. Co., will tell us of the "Commercial Application of Electricity".

As each of these men speak with authority upon his subject, an interesting and instructing program is assured.

You may smoke if you feel like it. We want you to enjoy yourself, and are sure that you will.

Be on hand at eight o'clock.

FRIDAY, DECEMBER 22
EIGHT O'CLOCK P. M.

LADIES' DINING ROOM
OREGON BUILDING

OFFICERS

Wm. S. Turner, President
 E. G. Hopson, 1st Vice President
 J. C. Stevens, 2d Vice President
 Philip H. Dater, 3d Vice President
 Orrin E. Stanley, Secretary
 Henry M. Morse, Treasurer

DIRECTORS

Russell Chase	P. L. Campbell
T. M. Hurlburt	J. R. Thompson
J. P. Newell	F. A. Naramore
R. S. Edwards	H. L. Vorse
Douglas W. Taylor	

CHAIRMEN OF STANDING COMMITTEES

Chas. McGonigle, Nominating Committee
 Chas. McGonigle, Membership Committee
 Philip H. Dater, Program Committee
 J. A. Foulhoux, By-Laws Committee
 H. L. Vorse, Library Committee
 J. P. Newell, Legislative Committee
 D. C. Henny, Public Relations Committee
 F. A. Naramore, Civil Service Committee
 W. H. Crawford, Publicity Committee

CORRECTIONS IN THE YEARBOOK

(Please make them in your copy.)

On the third page, beginning with the fourth line, should read:

E. G. HOPSON, First Vice-President.
 J. C. STEVENS, Second Vice-President.

PHILIP H. DATER, Third Vice-President.

Page 54, fifth and following lines read:

WEBER, Fred D., P. O. Box 745, Portland, Ore. (Charter) Electrical Engineer and Inspector Underwriters' Equitable Rating Bureau, 401 Lumberman's Building.

There may be other errors or omissions. If you know of any, please drop a card to the Secretary telling him about it, and a note will appear in the next Bulletin.

Mr. W. H. Lehfeldt writes that he is now at 532 East 5th Street, Los Angeles, Cal.

Mr. Walter B. Coale is at 220 So. Washington St., Spokane, Washington.

Mail addressed to Mr. T. W. Baker, 2782 Eaton St., Vancouver, B. C., has been returned. Does any member know where Mr. Baker may be found?

Members will confer a great favor upon the Secretary by notifying him when and where they move.

THE NEXT ADMINISTRATION.

The work of the Nominating Committee is doubtless more important than that of any other of the Society's committees.

Upon the result of the Committee's one act depends the success of the Society for the ensuing year, while the years in which the President is nominated are of double importance.

All of which leads up, or down, or around, to the thing that has been on my mind for some time, and that is, the strong and growing demand for "new blood" in the Executive Board. And the more that I think on this subject the more merit the idea seems to have.

But just here we encounter the Nominating Committee. Let us go with them into executive session and see how the future interests of the Society are looked after.

The committee is all new at the business. That is one of the rules imposed upon it by the Constitution. No member can be renominated for election to the committee, and worst of all, no member of the committee can be nominated for any of the elective offices of the Society. This is perhaps the "most unkindest cut of all." For if they could but nominate themselves there could be no doubt about the next year's officers being the best that could be secured. And of course they will not name any of the committee that nominated the existing one, for they are the men who are directly responsible for the existing state of affairs, which in plain English is this:

The cream of the Society deliberately sidetracked for two years, so far as doing any active work is concerned.

The committee has hearkened unto the increasing demand for "new blood" and its members are racking their brains in search of some men who have taken active part in the meetings and proceedings of the Society, and are not of the official family, or have not been so at some previous time. And here the conversation turns to the dental equipment of the hen, as the two subjects are approximately of equal scarcity.

This year there are to be nominated one President, to hold office two years, one Vice President to hold office three years, one Secretary and one Treasurer, each to hold office for one year, three Directors for the three year term and eight members of the Nominating Committee for one year. This you will see, if you are reasonably quick at addition, requires fifteen live, respectable, reliable, active members of the Society, eight of whom are not eligible for nomination to any office, and two of the others are not eligible for renomination to the offices which they now hold.

Just think this problem over a while yourself, and when you have arrived at a suitable solution, take the result to the chairman of the Nominating Committee with your humble apologies for butting in, and receive the blessing of that official.

CLUB ROOMS?

The question of permanent headquarters for the Society, which has lain dormant for some time, bobbed up serenely the other day when the question of moving our library from the Secretary's home and his office in the City Hall, to the Public Library at Tenth and Yamhill, was up for discussion.

At that time it was decided not to move the books now, as there is still a possibility that we may, at some time in the dim, distant future, have a home of our own. And when that happy time shall have arrived, we will want all the books that we own to form the nucleus of a large engineering library.

Now let us reason this thing out together.

If it will be a good thing for us to have a club house at some future time, why shouldn't we have one now, and be getting the good of it?

And if we do not need, and will not

use a club room if we have it, why not give our books to the Library Association and allow our members and other engineers as well, to be getting the good of them?

Once upon a time we tried out the club room idea in a sort of a way, but there were many reasons why the rooms were not patronized by the members; and some of these reasons, and some of the same members we still have with us.

This should not, however, be considered a good argument why we should not now, if it is the wish of a majority of the Society, have a place where we can meet informally, or for our technical meetings, without feeling the restraint of the rigid rules regarding smoking which must be observed at the rooms in the Public Library building.

Nor should those favoring club rooms forget that the receipts from dues are at present pretty well used up by the demands of current expenses as they exist today. Therefore if we are to have club rooms it will be necessary to double the membership or to double the annual dues, and of these two alternatives, the former seems the more desirable as well as the more feasible.

And still further, if we are to prosper as a society, and get to the front as we all of us hope to do, some members other than the officers must get in and dig.

The officers can do, have done, and are doing a lot of work for the Society, and they are all willing to do still more, but even at that, it is not fair to them, to the Society, nor to yourselves for you to allow them to do all of the work. It rather overburdens them, and it deprives you of one of the principal benefits which it is possible for you to derive from your membership.

Suppose you try mixing in the politics and policies of the Society for a while. You will enjoy the experience.

THE STATE ROAD LAW CODE.

By John W. Cunningham.

The resolution recently brought before the Oregon Society of Engineers, which endorsed the action of the County Judges in asking the U. S. Office of Public Roads to suggest a model road code for the State of Oregon, met with some opposition. This opposition was based mainly on the theory that we Oregonians are self-sufficient and do not need any outside advice. It showed a lack of familiarity with the situation, and it is not likely that with all the facts and time for consideration those who opposed the resolution would continue to do so.

There are two principal reasons for our Society supporting the Government code. First, it is likely to be better for the whole State; and second, it is certain to be better for us as engineers.

The argument that Oregonians can best draw up a road law for Oregon is on the assumption that our road problems are widely different from other States. Why this should be is hard to see. A law governing salmon fishing or coyote bounties might not be applicable to Indiana, but when it comes to road building, moving earth and rock and building culverts, there is little difference. It is inconceivable that the Government office would dabble in petty matters, such as the posting of signs on the Columbia Highway. On the broad problems, such as makeup of the Highway Commission, duties of the Highway Engineer, functions of the County Commissioners and the like, conditions are pretty much the same all over the country.

It is an axiom that unremunerated work is poorly done. This was what promised to be the fate of the road code. After the need for a new set of laws became recognized different organizations appointed committees to consider the question. These designated sub-committees to draft laws. The sub-committees met, talked over the matter, adjourned, and met again. Many ideas were offered, but none of

them seemed to get anywhere. New laws require detailed analysis and study. The members of these committees had other business which paid for the children's shoes, and could not be very well neglected to work on road laws. All the time, the opening of the Legislature was getting closer and closer, and the prospect seemed to be for another half-baked law, drawn up over night and crammed through the Legislature, to be regretted ever afterward.

At this time it became known that the U. S. Office of Public Roads at Washington had been making a study of the road laws of the entire country. Their experts had collected the laws of all States, digested, outlined, and classified them for comparison. They had visited each State, and investigated personally the workings of each law. They knew which laws were bad and which were good, and how the good laws could be still further improved.

The officers of the County Judges Association first made an inquiry of the U. S. Office, to see if they could get assistance. They learned that such assistance to States was one of the functions of the Office; that upon request from any State the Government would loan the services of their experts, to study and advise upon local problems. These men would be paid by the Government, would have no outside interests, and would devote their entire time to work upon a road code for the State of Oregon. With experience from other places to govern them, they would be unlikely to repeat known mistakes and best of all they would "get somewhere." Is it any wonder that the Association of County Judges and Commissioners voted unanimously to ask for such assistance? Is there any reason that we engineers should oppose it?

The second point made is that the law proposed by the U. S. Office of Public Roads will favor the engineering profession. Our self interest is legitimate. If we do not assert our own fitness as engineers to handle engineering work, we cannot expect others to do it for us.

Judging from continued gossip and from the newspapers, there has been an effort to discredit the part engineers should play in road work. The mistakes made by a few so-called engineers have been magnified. Their good work has been overlooked. The county roadmaster plan has been touted, and the point made that the roadmaster should not be an engineer, but a "business man" and a "practical road-builder." The engineer is accepted as a necessary evil when it comes to setting stakes, but is not supposed to have enough of a business head to direct work. The ideal roadmaster has been one who would serve without pay, preferably a millionaire logger, who from his experience in logging would of course know all about how to build roads and what kind of pavement to put on them.

The Chief of the U. S. Office of Public Roads is an engineer, and a good one. The office is largely manned by engineers. There are in the office attorneys to pass upon legal points, and financial experts to advise upon their specialty, but those in final authority are engineers. It can reasonably be assumed that a law which they suggest will recognize that engineers are by training and experience particularly fitted to handle road matters. That an engineer may also be an executive and a business man, and that engineers should not merely run transit, but should hold positions of the highest authority over road work. That rather than having road policies dictated by those who make it a hobby for their declining years, they should be in the hands of engineers who have made similar problems their life study. In short, under a law drawn up by the U. S. Office of Public Roads more than any other, the engineering profession may expect a square deal.

We should support the law proposed by the Government because it is drawn by and for engineers, because for that reason it is in the interest of efficiency, and benefits the State.

"BY THIS SIGN."

Back in ninety-eight there descended upon Chickamauga Park a motley throng, officially known as the "First Mississippi Infantry."

There were a few uniforms in the outfit, but not enough to make the observer certain that he was looking at a military organization. Some men were in overalls and others in almost every kind of clothes worn in this broad land of ours, but they were all soldiers, every man of them; loyal to their flag, their country and their commanders. It was their misfortune rather than their fault that they were poorly equipped; but whatever the reason, they were not looked upon by those more fortunate regiments which were fully uniformed, as really "belonging" to the army. And why? Because they wore no distinguishing badge of service.

Alas! I see that you fail to get my point.

Here it is then, in words of one syllable:

Buy a badge.

Wear it where folks can see it.

You will then be known for what you are, a man who plans things, and a man who does things.

A bug in the ear is sufficient.



BACK NUMBERS OF THE BULLETIN

The Secretary has received requests for back numbers of the Bulletin, but has been unable to supply the issues of MARCH and MAY.

Should any one have copies of these numbers which he does not care to retain, the Secretary will be glad to know upon what terms they may be secured.

MORE ABOUT THE METRIC SYSTEM.

From Mr. Fred Brooks of Boston, who is probably the most ardent supporter of the Metric System among civil engineers, comes a copy of a letter that he wrote to a fellow enthusiast concerning an article in the last Bulletin.

Portions of his letter follow:

31 Milk St., Boston, 25 Nov. 1916.

Prof. H. V. Army,

College of Pharmacy, 115 West 68th St., New York.

Dear Sir:

I have pleasure in enclosing to you herewith a Bulletin received yesterday, which appears to have come from a relatively youthful and obviously vigorous Municipal Engineer, Orrin E. Stanley, Bureau of Sewers, 409 City Hall, Portland, Oregon; but I do not let you off without comments from the standpoint of a veteran, so that you may draw some of the numerous wholesome morals which it embodies.

The Mexican engineering experience suggests, as to what at the present juncture we are anxiously looking for, that it is less for having instruction given in the elements of the metric system than for having the metric system arrest attention.

The Oregon Society of Engineers, having for its object the general professional benefit, "to advance the science and practice of Engineering and Architecture; to maintain a high professional standard among its members; and to organize engineering opinion in matters of public interest," evidently is keeping a-going and able to send around a Bulletin favorable to the metric reform; while the American Association for the Promotion of the Metric System, having for its object a particular work, is not known to me to be maintaining active life.

On the 6th page of the Bulletin, 9th line, the use of the word "bits" (based upon the old Spanish monetary reckoning) now a hundred and thirty years after the adoption of the Federal decimal system of money, indicates recognition of the long survival of

ancient units; and the person here using and recognizing it is the quondam Secretary of the American Association for the Promotion of the Metric System. What can you expect from the persons who don't want any metric reform in the way of holding on everlastingly to customary practice?

There is shrewd philosophy in the observation that the Promotion Secretary's "duties are what the person holding the office chooses to make them."

Regarding a bill at that time before Congress, favoring the adoption of the Metric System, Mr. Brooks quotes from a discussion of a paper by Mr. F. A. Halsey in the Transactions of the American Society of Mechanical Engineers, by Mr. Henry R. Towne, President of the Yale and Towne Mfg. Co., as follows:

"I think one reason why the bill presents objectionable features to the interests represented here, is that many of the manufacturers here present, and still more to those who are affiliated with this society and what it stands for, are producers of materials of which the Government is a consumer. Now, if the Government is going to demand that material in different dimensions from those that are standard, either a manufacturer must decline to deal with the Government or must incur great additional expense in providing special tools for the making of that material; and I believe that a great part of this opposition would be removed if the bill included a proviso that any of the departments of the Government, in the purchase of standard material, while perhaps requiring to have the dimensions stated in metric units, could adopt existing standard dimensions."

And further, Mr. Brooks quotes from Mr. Halsey:

"I have made it my business to inquire how many and what changes machine tool-builders have found called for by their foreign customers, and their answer settles this contention. I have said in the appendix that one of the Cincinnati milling machines

contains 18,300 dimensions: of these, that company has found occasion to make two to metric dimensions, these being the pitches of the traversing and elevating screws of the milling machine table."

There is much more that is of interest to one who is enthusiastically in favor of the metric system, in Mr. Brooks' letter, but we have not space in this issue to present it.

To such as may be sufficiently interested, a discussion before the Boston Society of Civil Engineers on April 26, 1916, and reported in the Journal of that Society, will prove worth while.

And if any of you have a dollar that is not busy just now, send it to the Secretary of the American Association for the Promotion of the Metric System, Box 973, Portland, Ore., and get one of the membership cards of that organization. They are rare, and are very highly prized, being the work of an exceedingly exclusive print-shop.

OUR ADVERTISERS.

The new year-book is now in the hands of all members; or should be. The Secretary will be glad to send you one in case your copy has gone astray.

The book is valuable for two things. The first is to tell who are members of the Society, and second, to tell who are their friends, and what these friends have to sell to engineers.

The advertisers of course hope to gain your favorable attention. They deserve it.

In the first place, we have not asked any to advertise in whom we did not have confidence; and then so long as they have helped to bear the cost of the book, it seems but fair that we should, one and all, boost for those who have shown their faith in us.

Many of the advertisers are fellow members. They, especially, will take pleasure in giving you the square deal for which all Oregon engineers are noted.

Carry the book with you until you are familiar with the list of advertisers, and buy from them when you can.

MINUTES OF THE REGULAR MONTHLY MEETING OF THE OREGON SOCIETY OF ENGINEERS.

At the Rose City Park Club House, East 57th Street and Sandy Boulevard, Thursday, November 23, at 8 P. M.

Fifty members and guests of the Society gathered at the Rose City Park Club House at East 57th Street and Sandy Boulevard, Thursday evening, Nov. 23, at eight o'clock.

Vice President J. C. Stevens called the meeting to order, and announced that a few stereopticon slides would be shown while the crowd was gathering. These were views of the country near Portland, and were taken about twenty years ago. They were quite pretty, and very interesting.

The minutes of the meeting of Oct. 20 were read, and as there were no changes, they were declared adopted.

The chairman then introduced Capt. Geo. S. Edmondstone, engineer of design and construction in charge of the elimination of grade crossings for the City of Portland, who delivered an address on the subject of "Grade Crossing Elimination," covering the subject in a very thorough way.

After giving a brief outline of the deadly effects of grade crossings in the country at large, he gave a brief outline of the laws in effect in various states and cities for their elimination, and the manner of paying for the work. He then showed some views of the proposed work on the Sullivan Gulch project in Portland, with plans of the structures for spanning the railroad tracks at several of the crossings, and explained them in detail.

A unanimous vote of thanks was given Capt. Edmondstone by the Society for the evening's entertainment.

The following resolution, introduced by Mr. Blood, was read, and adopted by unanimous vote.

WHEREAS, Providence has seen fit to remove from the family of our first president, Mr. D. C. Henny, his beloved son David Henny; and

WHEREAS, Mr. Henny has our high regard and friendship; be it hereby

RESOLVED, that the members of the Oregon Society of Engineers extend to him and to his family our heartfelt sympathy in their bereavement.

After the formal adjournment of the meeting, several people remained to ask further questions about some of the details of design, and other subjects in which they were interested.

ORRIN E. STANLEY, Secretary.

A LITTLE STUDY IN ADVERTISING

Nowhere in my patient and painstaking researches into the field of advertising have I seen mentioned such a plan as is here proposed.

Perhaps it has been tried, and found to be a failure.

But if it never was tried before, that is nothing serious against it. Many things were never tried before the first time, and in spite of that, lots of them have succeeded. So I am emboldened to try this. Here it is.

You are being offered a chance to place the news of your business before about three hundred of the liveliest engineers and construction men in the northwest, and to do so every month.

And you are not to be approached by a solicitor for this business.

When you have decided that your business needs the publicity that can come to it through the medium of the Bulletin, send your copy to the Secretary, or ask him to call and talk over the situation with you. In either case he will see that the news of your enterprise comes to the members of the Society, and to such other engineers as are reached by the Bulletin in readable shape.

The Bulletin is a year old, and so far, has not carried an inch of paid advertising, though it has fulfilled its purpose of advertising the meetings and other activities of the Society in a very satisfactory manner.

Also, its articles on advertising have been copied by technical papers which have a national circulation.

The circulation is limited in number, but the subscribers are very similar in tastes and occupations, and this fact makes the three or four hundred readers equal in buying power to a general circulation of ten thousand in the same territory and for the things which are used by engineers and construction men as a class.

So if you have something to tell the engineering fraternity, and do not care to incur the expense of bringing it before the general public (and perhaps missing the very men whom you wish to reach) let us tell your story in the Bulletin.

The Bulletin is read perhaps more thoroughly than any engineering pa-

per that comes into the northwest. We even heard of one man who read the minutes of the meeting.

If you tell your story interestingly it will be read, and if you are telling it to the right men, you will make a sale. And that is what you are advertising for—to sell your product.

Sell engineering supplies to engineers through the Bulletin—the engineers' own paper.

OUR FIRST BIRTHDAY ANNIVERSARY

This issue of the Bulletin is the first one of the second year.

Last December, when the Secretary betook himself to his cellar in fear and trembling and after going through all the mental and vocal gymnastics which are usually performed by the whole force of a newspaper office, brought to the light of day the first issue of the Bulletin, he did so with the hope that it might be received by the members in a kindly spirit. And he has not been disappointed.

Long, long ago, when the country just west of the Missouri was being settled, and when new towns seemed to rise from the ground like the first flowers of Spring, among the first enterprises of each new village was the newspaper, and without exception, so far as our knowledge goes, each of them headed the editorial page of its first issue with the statement that it had come in response to a "long-felt want" and that it "had come to stay."

The want may have been felt, but by whom, no one ever knew; and the papers stayed, each as long as its editor and proprietor could exist on the capital he had brought with him from the "east."

Now, the Bulletin had for some time sensed the "want" of periodical communication with the members of the Society, but being in no way sure that the members knew of this want themselves, and fearing that they were certain that they knew that no such want existed, made no mention of its possibility in the first, or succeeding issues, and is simply hinting at it now by way of passing.

Several members have been kind enough to acknowledge that they "read the Bulletin from cover to cover," which they also say is more than they do of any other engineering paper. Of course there may be several reasons for this—take your choice of them.

It has been the endeavor to make the paper interesting; to say the things that seemed to be in greatest need of being said, and then stop. And as we look over the issues of the past year, we are led to believe that the greatest merit lies in the stopping. But, even so, we are going to offend to a greater or less degree in that matter, the coming year.

We have asked for contributions, and previous to this issue have received but one, and that one seemed so far above the plane upon which the Bulletin was traveling, that it was turned over to the committee in charge of the Journal, and appears therein. Other contributions are offered in this number.

Matters of timely interest which do not appear to be worthy of permanent preservation or which should be given to the public without delay, will be printed in the Bulletin, and those of more technical interest and importance will be passed on to the editors of the Journal for their approval, getting which, they will appear in its pages.

Advertisements will be admitted to the pages of the Bulletin if dealers in supplies used by engineers can be found who feel as does the Secretary, that timely news of timely goods will be of such interest to the members of the Society that they may be induced to buy the goods that are offered.

Of course if all should remain so careless of their own interests as to neglect this golden opportunity, the Bulletin will have to continue as it has in the past, the best paper of its size, and the only paper reaching exclusively the engineering interests of Portland and the Oregon Country.

UP THEY GO!

Another indication of the H. C. of L. is the rise in price of the silver badges for Juniors and Student Members from—there, I almost said "six bits" again—seventy-five cents, to a whole dollar each.

The last lot that came from the manufacturers were at this advanced price, so no more can be sold at the old price.

Now, don't you wish that you had gotten one sooner?

It might not be a bad idea for those of you who have put off providing yourselves with a gold badge, to get one while they are still to be had at \$1.50.

WANTS A CHANGE OF WORK.

One of our Junior Members writes that the line of work for which he fitted himself, and which he has followed since leaving college has been disappointing in the results to be obtained, and is placing an application on file in the hope that he may "sooner or later get a position suitable to his training and experience."

He says, "I appreciate the service that the O. S. E. is giving its members and only regret that I have been unable to take a more active part in its affairs. As soon as I am a little better able I wish to put in an application for Active Membership—something which I have already postponed too long for my own good."

Now, the receipt of a letter like this naturally stirs the Secretary to greater effort for the benefit of all, and being human, he will perhaps think a little more kindly of the writer than of some others who—well, it is just as well not to say anything at all about those others right now.

But please take time to look through the list of men who are available for work, as shown elsewhere in this issue. They are all capable of holding better positions than they now occupy, and they will be doing so very shortly, if present indications count for anything.

POSITION OPEN.

There is an opening for a Ship Draftsman who "knows how" and combines with this quality, tact, energy and ambition.

Ask the Secretary.

POSITIONS WANTED.

1.

Civil Engineer, age 38. Twenty years experience investigation, organization, location, construction, operation and management of electric railways, electric light and power plants; location and construction of railroads, highways and bridges, investigation and development of coal mines and quarries, reclamation and drainage of swamp lands, streets, sewers and water supply construction; land, river and harbor, triangulation and topographical surveys; valuation reports; managing and cost accounting for engineering construction, and superintendence of construction.

Has been successful in promotion work and has a reputation for sound financial judgment.

Wants work of any kind to "fill in" between jobs while waiting for the courts to untangle questions of property rights in connection with project in which he is interested.

More detailed information at the office of the Secretary.

2.

Civil Engineer, age 28. Prefers civil engineering executive work on railroads.

B. E. Univ. of Miss. 1907. Course of Commerce, Accounts and Finance with the Alexander Hamilton Institute.

Five years with the Ill. Cen. R. R. from track apprentice to instrumentman. Four years with one company in Oregon, salaries for the nine years ranging from \$50.00 to \$125.00 per month.

Received two appointments with Interstate Commerce Commission on railway valuation but preferred to return to company for which he had been working, and for which he has had entire charge of the field work of extensions and reconstruction amounting to \$100,000.00.

Further details will be given in an interview. The Secretary will give you his address.

3.

Civil Engineer, age 30. Prefers municipal engineering work, or any other line where he can have chance of advancement upon showing ability.

Civil engineering course, Stanford University, also civil engineering course I. C. S.

During vacations for 7 years assistant to County Surveyor. 1909 to date transitman and district surveyor, City of Portland.

4.

Civil Engineer, age 32.

Prefers irrigation, hydro-electric or other hydraulic work.

C. E. Cornell University, 1909.

Experienced on stream measurements, drafting, inspection on concrete work, irrigation construction, construction and management of irrigation works, designs and estimates of cost of irrigation and hydro-electric works.

5.

Recent Graduate, age 23.

Desires position where he can get experience in structural engineering.

Graduated from O. A. C. in 1916 (Mechanical engineering course), having specialized in architecture and structural engineering.

Before entering college, and during vacations worked at carpenter work and assistant superintendent and timekeeper on reinforced concrete and brick school buildings and residences.

References and further information on file in the Secretary's office.

6.

Draftsman or concrete inspector, age 25.

Studying concrete engineering in I.C.S. Has been transitman on orchard development and rodman with the U. S. R. S. Salaries \$80.00 and \$75.00 per mo.

7.

Electrical Engineer, age 32.

O. A. C. class of 1905 in electrical engineering.

Mass. Inst. Tech. class of 1909, electrical engineering.

Taught mathematics one year at O.A.C. Seven years in electric railway work with two companies. This work included drafting, electrolysis tests, power house work, machine shop work, repair of electrical equipment, surveying and construction of interurban line, statistician in mechanical department and efficiency engineering, planning and routing shop work.

Would consider other line of work where his training will be of service to employer.

8.

Recent graduate in civil engineering.

Has had some field work, and wants more of the same or office work. Available at once.

9.

Recent Civil Engineering graduate.

Spent last summer with U. S. Geological Survey.

Desires immediate employment. Location or kind of work not specified.

For further information about any of these men, address the Secretary, Box 973, Portland, Oregon.

THIS Advertisement is being read by 500 Engineers---the cream of the profession in the Oregon Country.

¶These men have the money to supply their personal wants.

¶They control the expenditure of millions of dollars annually.

¶Tell them what you have for them personally. Tell them what you have that will help them give more satisfactory service to their clients.

¶Tell them these things that they want to know, in the paper which they read---THE OREGON SOCIETY OF ENGINEERS BULLETIN. Then reap the results of profitable publicity.

For Rates Address
THE SECRETARY, Box 973
PORTLAND, ORE.

The Bulletin

The Bulletin of the Affiliated Engineering Societies of Minnesota presents the following verses "with apologies". They are presented to you for what you can get from them:

Sleep Sweet
Within thy rusty shell,
Oh, Engineer thou art,
And let no social work today
Disturb thy peaceful heart;
Nor let tomorrow scare thy rest
With dreams of coming ill.

Thy Bulletin,
Thy changeless friend,
Works humbly for thee still;
Forget thyself and all thy work,
Snore on with all thy might;
Don't try to help another soul;
Sleep Sweet.

Good night! Good night!



BULLETIN

UNIVERSITY OF ILLINOIS LIBRARY

UNIVERSITY OF ILLINOIS LIBRARY JAN 26 1917

No. 13

PORTLAND, OREGON

January, 1917

HEATING AND VENTILATING

Will be Discussed at the Next Meeting of the

Oregon Society of Engineers

MR. GEO. E. REED, will discuss the "Mechanical Equipment of Buildings".

MR. JAY R. KELLER'S subject will be "The Selection of the Proper Type of Heating Plant for Different Buildings".

The meeting will be held in the LADIES' DINING ROOM of the PORTLAND CHAMBER OF COMMERCE. 8th floor. 5th and Oak.

Friday, January 19, 1917

At Eight O'clock P. M.

ANNUAL ELECTION.

Ballots will soon be sent to all Active Members of the Society. Only those from members who are less than six months in arrears on the last Thursday of January will be opened and counted.

If you are in doubt as to your standing, ask the Treasurer; or better yet, send him a check for five dollars. He will credit your account with the amount sent, and will tell you if you are one of those rare individuals who have paid for more than a year in advance.

If the Society is not being run to suit you, NOW is the time for you to assert yourself. It is easier to change policies by changing officers than to force men who have gotten into a rut, to get out and travel a new road, even though it may be smoother.

A PORTLAND ADVERTISEMENT

The front cover of the Engineering News of Dec. 14, is of interest to Oregon engineers because it is occupied by an advertisement of a Portland firm (one member of which is a member of our Society), and calls attention to the invention of a Portland engineer who is, and has been since its organization, active in the Society as an officer and member.

The Stevens Continuous Water Stage Recorder is rather more than human in its operations. It is always on the job; it never sleeps, and it passes out the record of its observations when you want it, without asking for double pay for night and Sunday work.

If you are not acquainted with this wonderful instrument, you should inform yourself as to its capabilities.

Leupold and Voelpel are the makers. See their "ad" in the year-book.

OFFICERS

Wm. S. Turner, President
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 J. C. Stevens, 2d Vice President
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 W. H. Crawford, Publicity Committee

GETTING RESULTS.

You carry a shot-gun when you hunt quail, and the number of birds you bring home depends upon your skill with the weapon and the number of quail that you have seen.

The sudden rise from right under your feet, the whirring flight to all points of the compass, and the rapid disappearance into shelter combine to make all other tools for gathering the quail crop practically worthless.

But if, instead of quail, you are looking for an elk to supply your larder for the winter, do you hit the trail encumbered with the same old scatter-gun?

You do not.

You provide yourself with a rifle of known range; the sights have been tested, and the cartridges are the output of a reliable house, or you may have loaded them yourself so that you know what they will do. Then you go into the elk-infested country with the knowledge that you are going to bring home some meat.

Getting results from advertising is quite a similar proposition.

If the product which you wish to sell is used by practically everybody, you simply have to put a big load of fine shot in the daily paper and you are sure to score a hit on several of its thousands of readers.

But if you wish to appeal to a special class, you should use a different medium—one which carries its message to the men you wish to reach and which hits hard.

For engineers in the vicinity of Portland such a paper is the Bulletin of the Oregon Society of Engineers.

Its circulation is not general. It is not to be recommended as a suitable medium for advertising dry goods and groceries, or even shoes or clothing, unless you have a kind of shoes which have proven better for the use of engineers and surveyors than the average, or have clothing which is particularly adapted to the needs of engineers. If you have these, use the Bulletin and get results.

For those things which are purchased principally by engineers, I contend that the Bulletin is the best advertising medium in Portland. It reaches practically all of the engineers in this vicinity and then stops. No lost motion. It is read by these men—and by some of their wives. It is given more consideration by many of them than a circular letter sent under first class postage. Why? Because it carries a message to each reader, and he has learned to look for it.

What more can you ask of a medium for advertising the supplies which are required by the class of men reached by this paper? Absolutely nothing.

Should you desire help in preparing your copy so that it will be read and remembered and will make the sales—well, that is another story, of which more later.

THE ALASKAN RAILROAD.

Mr. F. U. Mayhew writes from Anchorage, Alaska, under date of Dec. 13.

To avoid the possibility of getting writer's cramp, he refers to two copies of the official bulletin of the Alaskan Engineering Commission which he enclosed, for information regarding the work on which he is engaged.

Besides Mr. Mayhew's name as Assistant Engineer, the names of L. C. McCoy, Supt. of B. & B., and K. K. Kuney, Engineer of Maintenance of Way, are recognized as having been once familiar to Oregon Engineers.

"MAYOR WANTS ECONOMY IN CITY AFFAIRS

Suggests Material Reduction In the Salary of Assistant Engineer."

Practically every engineer who has been out of college for five years has passed through one or more spasms of economy on the part of the non-technical head of the concern for which he was working, and it is safe to say that without exception the economy has been along the lines suggested above—a material reduction in the salary of the engineer; and in many cases he would have considered himself fortunate if the "big boss" had contented himself with the "material reduction" instead of doing away with the services of the engineer entirely.

But what can the engineer do?

He has been taught to do as he is told. He has been drilled in the technical side of his work. He has studied long and diligently to perfect himself in the theory and practice of the work that he believes he is paid to perform. And in doing all this, he has developed himself into a good engineer, as he understands the meaning of the word; but even so, he feels that something is still lacking. He is sure that something somewhere is wrong, for the engineer is the last man to be hired when a new project has gone just as far as it can without engineering help, and is the first man to be fired when the work has been so planned by him that the owner or the superintendent thinks that he can complete it with the help of a "practical man" as foreman.

If in trying to save the salary of the engineer for two or three months at the close of a job, the practical man gets things hopelessly balled up, and sinks into the yawning cavity popularly known to accountants as "profit and loss," a sum sufficient to pay two engineers for a year, the foreman and his boss talk things over and decide unanimously that the "blinkety-blanked engineer is to blame and should have been fired long before."

Of course we know better, and in the seclusion of the blue-print room

can tell each other all about it, but that does not get us anywhere.

If we are ever to get out of the rut into which we have so blindly followed our leaders, we must develop the knack of telling the general public how smart we are, how much better the world of today is for having had engineers in it for the many years that have passed, and what we, ourselves, are doing to save the world from itself and form those who have combined to ruin it and all of its inhabitants.

Most engineers are so darned modest that it is really refreshing to occasionally find a man who has done things, and is not backward about telling of them. It might get tiresome after a while, but I have heard so little of it that I have found that little to be interesting as well as instructive.

The engineer's training is of such a nature that he is sure of himself. There can be little excuse in many cases for him to doubt his methods or his reasoning, or to question what the result will be. He knows. Then, why in the name of common sense does he pussy-foot around in the quiet places, straining his ears to catch the faint murmur of applause which he knows to be his due, and knows almost as surely he will never hear?

I am not advocating that each engineer hire a brass band to precede him on his daily walks. He can't afford it in the first place, and I doubt if it would produce the desired result in any case. But I do believe that tactful and judicious "tooting of his own horn" will prove both beneficial to himself and to the public which he so well serves.

Let each engineer in his own way tell what engineers are doing for the community, how their work safeguards the lives and property of the citizens, how conveniences in the home and the business that were unbelievable a few years ago have been made possible by the labor of this tireless and self-sacrificing band of men, and let each tell what is his part, be it large or small, in the work of the world. Let engineers step out of the shadow of self elimination in which they have worked since they

began planning and perfecting devices and methods for advancing the interests of the capitalist, and do a little boosting for engineers. Then watch the results. They will be interesting.

Try it on the next man you meet.

WHY NOT IN PORTLAND?

They have done it in Baltimore now. And in Philadelphia, St. Louis and St. Paul, too, the engineers have gotten together in an all-inclusive co-operative body.

Are we, in Portland, so much better that we do not need to work together for the common good of technical men? Or are we so much worse than the average that to associate together in one group, would be detrimental to the whole?

We are neither.

We, in common with the engineers of other cities, have much to gain, and nothing to lose, by co-operation.

But we must go about it right, and they seem to have hit upon the correct way in Baltimore. This is the way they did it.

Local branches of the national engineering societies together with the Engineers Club of Baltimore, have formed themselves into the "Associated Technical Societies of Baltimore." The board of governors consists of the presidents of each of the member organizations. The dues are proportional to the membership of the member organizations, and when one man is a member of two of the associated societies each pays equally the per capita dues of such member.

The association was formed for the following purposes:

"(1) To advance the interests of all technical organizations through co-operation and concerted action.

(2) To promote good will and fellowship and increase mutual acquaintance among the members of the several units of this association.

(3) That through such co-operation, united action may be taken on such matters as this association is best fitted to consider or propose.

(4) That subjects of common interest or of a civic character may be presented for joint discussion and action, thereby strengthening the in-

fluence of technical men in matters of public welfare."

The Monthly Journal of the Engineers Club of Baltimore, from which the above is quoted, gives some reasons for the failure of former attempts to organize such an association, which may throw some light on local conditions, and explain, in a measure, why we have not hitherto been able to get together in a similar organization.

It says: "For several years a number of the members of the Engineers Club have felt that by some means there should be formed a closer relation between the various organized bodies of technical men. From time to time efforts in this direction have been initiated through various committees appointed to consider the subject.

It has always been approached from the standpoint that the Engineers Club should be the central figure and generally, any such association involved membership in that organization as a condition. As this not only entailed a serious additional expense but in a manner jeopardized the identity of the affiliating bodies, all these attempts failed."

An announcement mailed to each member of the various organizations at the first of the month will give the meeting announcements for each. Each society can then send out to its own members at its own expense, such notices as concern only its members, but the monthly publication is intended to cover all items of general technical interest.

We already have a start towards this end in the bi-weekly luncheons. They are doing much to keep up an interest in general as well as technical matters, but there seems to be no good reason for not carrying the idea further, and deriving all the possible benefits of co-operation among technical men in Portland. It isn't being done simply because it is easier for most of us to leave it undone.

Will not someone show his energy, and win the good will of his fellow men by taking hold of this problem and pushing it through to a successful conclusion?

The Bulletin offers its services for publicity purposes.

MR. DIECK HONORED

Mr. R. G. Dieck, charter member of the Oregon Society of Engineers, was elected President of the Portland, Oregon, Association of Members of the American Society of Engineers, for the year 1917, at a meeting of that Association held in the library building on January 5th.

Mr. Silas B. Phillips, member of the Oregon Society of Engineers, was elected Second Vice President of the Association.

Following the election of officers, a discussion of the proposed road code for Oregon was led by Mr. J. W. Cunningham, who was the representative of the Association at the Commonwealth Conference which had just closed its sessions, and on the Oregon Good Roads Committee which met Jan. 6, to make recommendations to the legislature.

Mr. J. P. Newell, retiring President of the Association, was the representative of the Oregon Society of Engineers on both of these committees.

THE QUESTION OF FEES.

An inquiry comes from Asheville, N. C., where a move is on foot for the organization of a society of Civil Engineers, for information about our Society, and what we are doing in the matter of regulating fees charged by engineers and surveyors.

Some of the questions are given below, and any information which the members may have as to common practice in and around Portland will be welcomed by the Secretary, and will be forwarded to the inquirers in the east.

What fees, based upon the total cost of work, are usually charged for engineering design and supervision? (Note whether this percentage includes field and office men and other expenses.)

What per diem charges are usually made for the services of:

Civil Engineer	Rodman
Land Surveyor	Chainman
Instrumentman	Axeman
Draftsman	

(Note whether above rates include expenses away from office.)

What are the minimum charges for lot surveys?

What is the scale of charges for routine work requiring less than a whole day?

Remarks:

Please address replies to Box 973, Portland, Oregon.

THE AMERICAN METRIC ASSOCIATION.

There was organized in New York, near the end of last year, the American Metric Association, having for its object "to further the use and adoption of the International Metric System."

The individual dues in this association are \$2.00 a year; firms are admitted, and entitled to send two delegates to the meetings, on payment of \$5.00 a year, while organizations, with the privilege of sending five delegates, are admitted on annual payment of \$10.00.

The officers are as follows:

George F. Kunz, President.

Wm. Jay Schieffelin, First Vice-President.

E. P. Albrecht, Second Vice-President.

O. E. Stanley, Third Vice-President.

Arthur P. Williams, Treasurer.

Howard Richards, Jr., Secretary.

Five appointed members of the Executive Committee are: H. V. Army, Frederick R. Drake, A. E. Kennelly, S. W. Stratton, and W. P. Wilson.

This association will doubtless accomplish the work undertaken by the late lamented American Association for the Promotion of the Metric System, organized some time ago in Portland by the members of the Oregon Society of Engineers, and which seems to have "died for the lack of breath."

The Secretary's office is at 156 Fifth Ave., New York City.

Mr. Percy A. Cupper, Assistant State Engineer, Salem, Oregon, is the author of an article in the Engineering News of Nov. 23, 1916, describing the "Method of Making Drainage and Improvement Assessments."

Engineering News of Dec. 21, 1916, contains an article by Mr. J. C. Stevens, on "Rectangular Wooden Flumes."

As Mr. Stevens has had recent experience in this kind of construction his article will prove to be an interesting as well as valuable contribution to the literature of modern irrigation methods.

COMPENSATION OF ENGINEERS

"I told him that on account of the disagreeable character of the work, the long hours, and the fact that I was an experienced man at that kind of work, I thought that I was worth more than he was paying me," said a middle aged engineer while discussing the ever interesting matter of salaries. "So he raised my pay \$25.00 a month. That was twenty years ago. I was getting a hundred a month then, and I'm getting a hundred and thirty-five now." The rest of his remarks have failed to pass the censors.

You can no doubt call to mind, without effort, a dozen or more parallel cases, possibly including yourself.

There are few men in the engineering profession in the vicinity of Portland who have not at some time in the past, and in other localities, received more compensation (stated in dollars and cents) than they are now receiving.

What, then, is the answer?

Is it the climate, which we have for a few days a year? Is it the view of Mt. Hood, which we enjoy for a similar brief period? Or is it that ray of hope, which we are told "Springs eternal in the human breast" that keeps us here?

And if some man, more fortunate than the average, by force of his personality, or by a combination of circumstances, ordinarily designated as luck, sticks his head above the heads of his fellows in misery, and receives a salary as great as one half that of the "average engineer" of his experience (see Engineering News, Jan. 4, 1917, page 41), what do the rest of us do?

You know the answer, and I can see that you are a little bit ashamed to have to own up to it. We simply get together in the most convenient place and proceed to have an old-fashioned hammerfest, if the pro-allies will pardon the attempt to drag in a German-sounding word. We explain to each other that he is a mere babe in arms when it comes to designing and building the class of work for which he has been engaged. And besides that, he beats his wife; and furthermore we distinctly remember that once,

when he was working for So-and-so he made a mistake.

And so it goes.

Is it any wonder that the general public has a poor opinion of the engineers? Isn't it a wonder that any of us are fortunate enough to have our names on any pay-roll?

Do you know a doctor who never lost a patient?

Can you name a lawyer of any experience at all, who has a record of having won every case in which he has appeared?

Will you please point out a preacher who can say that his entire congregation is headed in the right direction, or even wishes to be?

And among all the engineers that you know, and have known in the past, or ever expect to know, can you point to one—even one—with as high a per cent of failures charged up to his account as the average of any of the other three of the "learned professions?"

You can't?

Then keep a grave-like silence on the subject of your fellow workmen unless you can say a good word for them.

After a while it may come natural for you to speak a word of praise for the engineer who does almost as well as you could have done when you were a boy, and then, maybe somebody will allow the information to leak out that you are a rather fairish sort of a dub, and have been known to have an occasional rational idea.

When this sort of thing has become a habit among engineers, others will begin to get the notion that we are really of some account in the general scheme of things, and the matter of salaries will have a tendency to adjust itself.

Register with the Secretary
for Employment
409 CITY HALL
Portland, Oregon

Among the out-of-town members of the Society who were seen on the streets and around the conventions during the last month were Mr. John H. Lewis, State Engineer, Mr. John R. Penland, City Engineer of Albany, and Mr. John Dubuis, formerly Assistant Secretary of the Desert State Land Board, of Salem.

Prof. S. H. Graf and Prof. C. B. McCullough, both of the Oregon Agricultural College, Corvallis, spoke before the conference to discuss the proposed road code.

A REAL CLUB HOUSE

Although he has been absent from Portland for some time, Mr. Harza remembers that there is such a place, and even reads the Bulletin, as the following letter will show.

Sault Ste. Marie, Ontario,
December 26th, 1916.

Orrin E. Stanley, Esq.,
Secretary, Oregon Society of Engineers,
City Hall, Portland, Oregon.
Dear Stanley:

I am in receipt of the December Bulletin, and note a discussion of the old subject of club rooms.

Last Spring I lived two or three months at the Chicago Engineers Club, and that a word as to their accommodations might be of interest to the Oregon Society. Altho perhaps, a similar project would not be possible of accomplishment now, yet it would seem to me their scheme offers a good deal on which to work, and might eventually be worked out in a city even the size of Portland.

The Chicago Engineers' Club have their own building, seven stories high, about 25 feet frontage on Federal street and probably 200 feet long. A long term lease was secured on the ground, designs were prepared for the building, a tentative lease was secured for the lower floor from the proprietors of St. Hubert's grill with a contract by which they were to establish a first-class grill, and were to furnish also grill service to a dining room of the Engineers' Club on an upper floor thru a dumb-waiter, to be installed.

Two floors were also rented to the Illinois Club, same being a club of the Alumni of the University of Illinois. This left plenty of space for the Engineers' Club, and the leases from the grill and the Illinois Club furnished income sufficient to pay all the interest on the bonds of the complete building. With these leases, the bonds were offered for sale and found a ready market, mostly among the engineers of the club, altho some were sold outside.

It strikes me that Portland bonds would be worth more than Portland real estate, and there are probably very few members of the Oregon Society who have not fallen victim to the town lot fever.

One floor of the Club is very nicely furnished for a reading room and lounging room with billiard and pool tables, and an office for the Secretary, and another floor is fitted with rooms for rental to out of town members as at a hotel. Since the building has been in use, the grill has proven so popular for noon luncheons that they have organized their own force of waiters and cooks, and severed connections with the St. Hubert's grill. The place is crowded every noon and is quite popular in the evening, an excellent social spirit existing between the members.

Yours very truly,

L. F. HARZA.

We may not be able to build a house for ourselves, but we ought to be able to get some ideas from Mr. Harza's letter that will help in bringing the members of the Society closer together socially. And this is one of the things that must be done if we are to take our proper place in the affairs of the community.

Please come out of your shells and let us have the result of your sober thoughts on this subject.

APPLICATIONS FOR MEMBERSHIP

As required by the Constitution, the following abstracts from applications for membership, now on file in the Secretary's office, are submitted to the Society for approval or comments as to classification.

In case no objections to any of the applicants reach the Executive Board before February 20, the Board will cast the ballot of the Society for each in the grade in which he seeks membership.

ACTIVE MEMBERS.

EDMONSON, NORMAN R., Box 28, Molalla, Oregon. (Age 28, born Tacoma, Wash.) (Whitworth College, 1906-08, Forestry.) March to June 1908, Levelman, U. S. Forestry Service, Mt. Rainier National Park; Aug. to Dec. 1908, Topographer, Fuller & Manley Co., Tacoma, on Location survey; 1909-10 Rodman on Maintenance of Way, and Levelman on Location, N. F. Ry., Tacoma; May to Aug. 1910, Inspector, Tacoma and Seattle Highway; Oct. 1910, M. of W. Can. Pac. Ry., Vancouver, B. C.; Sept.-Dec. 1911, Instrumentman, Hydrographic Survey; 1912, Cruising timber, Dominion Trust Co., Vancouver, B. C.; Transitman Garden & Taylor D. L. S., B. C. L. S. Land

surveying etc.; Aug. 1913, Asst. Engr. O-W. R. & N. Co., M. of W.; 1914, Inspector, C. P. R. Bridge Work, Vancouver, B. C.; 1914-15 cruising timber for I. Scott and James D. Lacy & Co.; 1916, Asst. Engr. Columbia Nehalem Ry.; 1916, Computer, on Medford Crater Lake Highway, Trail, Oregon. Endorsed by R. E. Merrill and David G. Glass.

FOX, I. CHARLES, 1204 Willamette Boul., Portland, Ore. (Age 38, born Montreal, Canada.) (College of St. Francis Xavier, New York, 1893-98, Brooklyn Polytechnic Institute, 1898-00.) 1901-3, Timekeeper, Foreman and Rodman with Degnon Contracting Co. on Rapid Transit Subway construction, New York City, rock tunnel and railroad construction in Pennsylvania and Ohio; 1903-07, rodman, transitman and assistant engineer with Aqueduct Commission, New York City, on construction of high masonry and earth embankment dams, including topographic surveys, railway and highway location and construction, sewer and sewage disposal works construction, steel and reinforced concrete bridge construction; 1907-10, designing dams, gate houses and concrete bridges for New York Aqueduct Commission; 1910-14; designing extensions and improvements to the water main distribution system, investigating and reporting on the resources of private water companies, and preparing contracts and specifications for water main construction for the Department of Water Supply, New York; 1914 to date, not engaged in engineering work. Endorsed by John W. Cunningham and Orrin E. Stanley.

MCCULLOUGH, C. B., Corvallis, Oregon. (Age 30, born Redfield, S. D.) (B. S. in C. E., C. E. Iowa State College.) Oct. 1905-Sept. 1906 chairman, I. C. R. R., Cherokee, Ia.; Sept. 1906-1907, rodman and inspector, I. C. R. R., Clinton, Ill.; Sept. 1907-Mar. 1908, instrumentman, Indianapolis Southern R. Co., Indianapolis, Ind.; Mar. 1908-June 1910, draftsman with Iowa Highway Commission, resident engineer sewer construction, city of Ames, Iowa, assistant on bridge construction, and also took some work at I. S. C.; June 1910, assistant engineer Marsh Engineering Co., Des Moines, Iowa; Nov. 1910, assistant engineer Iowa Highway Commission and later bridge designing engineer, and in 1915 assistant chief engineer; Sept. 1916, at Oregon Agricultural College in Civil Engineering Dept. Endorsed by S. H. Graf and R. H. Dearborn.

JUNIOR MEMBERS.

BURTON, E. K., 495 E. 37th Street, Portland, Ore. (Age 30, born Marseilles, Ill.) (C. E. Course, I. C. S.) March 1910 to date in City Engineer's office, Portland Ore., five years as computer in the office and three years in the field. Endorsed by Joe J. Brooks and Leigh M. Huggins.

PETTIS, MARSHALL G., Route 1, Irving, Oregon. (Age 25, born LaCrosse, Wis.) (Concrete engineering course I. C. S.) Nov. 1915-May 1916, transitman on fruit ranch for E. L. Klemer, Alvadore, Ore.; Aug. 1916-Nov. 1916, rodman, U. S. R. S. at Irrigon, Oregon. Endorsed by Hollis W. Libby and E. H. McAllister.

REGULAR MONTHLY MEETING OF OREGON SOCIETY OF ENGINEERS

At The Chamber of Commerce, Friday evening, December 22, 1916, at 8:00 P. M.

Twenty-seven members of the Society and guests assembled at the Ladies' Dining Room of the Portland Chamber of Commerce in response to the announcement of an Electrical Night.

President Turner called the meeting to order and asked for the minutes of the previous meeting which were read by the Secretary, and approved without change.

The following Amendment to the Constitution was presented by Mr. Cunningham and read by the Secretary:

Article IX, Section 1, under "President" change to read "elected for a term of one year."

Article IX, Section 1, following "Three Vice Presidents" change to read, "the vice presidents are not eligible for immediate re-election to the same office."

Mr. Cunningham explained that he knew of no other similar society in which the term of the President was for more than one year, and could see no reason why our society should have the president hold office for two years.

The amendment was laid on the table to be voted upon at the next meeting.

Mr. Naramore read extracts from the proposed law for licensing architects in Oregon, and explained the provisions of the law.

Mr. Cunningham moved that the bill be turned over to the Legislative Committee with instructions to support it if it appears to the Committee to be a good law for Engineers, but if it appears to contain anything against the best interests of Engineers, to oppose it.

President Turner announced the names of the members of the delegation to the Oregon Irrigation Congress and the Committee to represent the Society in considering the new Road Code for Oregon.

He then introduced Mr. O. B. Coldwell, who spoke on "Recent Achievements in the Electrical Field."

Mr. R. R. Robley was the next speaker. His subject was "Historical Phases of Electricity."

Mr. W. H. Lines, whose subject was "Commercial Application of Electricity," concluded the program.

The speakers have been long identified with electrical work, and their talks were all very interesting.

A unanimous vote of thanks was given the speakers.

The president then declared the meeting adjourned.

ORRIN E. STANLEY, Secretary.

Copies of the Bulletin for March and May, 1916, have been received from Mr. Soden and Mr. Parker, thus relieving the most pressing needs.

Two or three more copies of the MARCH number will be thankfully received by the Secretary as they are required to complete files in libraries.

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Engineering

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BULLETIN

No. 14

PORTLAND, OREGON

February, 1917

Annual Meeting
of the **Oregon Society of Engineers** at the
University Club
Corner Sixth and Jefferson Streets
Monday evening, February 5th, 1917
at 6:30 O'clock

An informal DOLLAR DINNER will be served; and to assist the committee in making preliminary arrangements, the Executive Board will give a REBATE OF 50c to All Whose Reservations are postmarked on or before February 3, 1917.

This is not a "four bit" affair—but a real dollar dinner WITH MUSIC,—at four bits to the live ones.

MAIL THE ENCLOSED CARD NOW.

After the dinner, the reports of the retiring Officers will be heard. Discussions of papers published by the Society during the year will be led by selected speakers, and a chance will be given to everyone having anything to say on matters of interest to the Society, or engineers in general, to speak at this time.

ORRIN E. STANLEY, Sec.

OFFICERS

Wm. S. Turner, President
 E. G. Hopson, 1st Vice President
 J. C. Stevens, 2d Vice President
 Philip H. Dater, 3d Vice President
 Orrin E. Stanley, Secretary
 Henry M. Morse, Treasurer

DIRECTORS

Russell Chase	P. L. Campbell
T. M. Hurlburt	J. R. Thompson
J. P. Newell	F. A. Naramore
R. S. Edwards	H. L. Vorse
Douglas W. Taylor	

CHAIRMEN OF STANDING COMMITTEES

Chas. McGonigle, Nominating Committee
 Chas. McGonigle, Membership Committee
 Philip H. Dater, Program Committee
 J. A. Foulhous, By-Laws Committee
 H. L. Vorse, Library Committee
 J. P. Newell, Legislative Committee
 D. C. Henny, Public Relations Committee
 F. A. Naramore, Civil Service Committee
 W. H. Crawford, Publicity Committee

ROAD LEGISLATION

The Secretary, as instructed in a resolution adopted by the Society at its last meeting, sent to Mr. Laurgaard a copy of the resolution requesting that gentleman to use his influence towards securing the passage of a part of the Road Code proposed by the U. S. Office of Public Roads.

Mr. Laurgaard's reply follows:

"Your letter of January 20, 1917, was received by me on Monday, after I had introduced a road code prepared by my committee in behalf of the County Commissioners and Judges. The code, which was presented by myself, differs from the code submitted by the Government in several respects, and particularly in the personnel of the Highway Commission. I am of course strongly committed to my code, so that at this time it is impossible for me to comply with the resolution which you forwarded to me, insofar as the inclusion of the State Engineer of the Highway Commission. I believe

that the inclusion of a paid state official on a fixed salary commission, and especially an engineer receiving less salary than the one proposed for Highway Engineer, would result in confusion, conflict of authority, and would not be conducive of successful work from the Highway Department.

There is nothing personal of course in this attitude by myself, but I am guided solely by my judgment and beliefs in the matter.

Yours sincerely,

O. LAURGAARD."

ADVERTISING CONCRETE PIPE.

In the issue of the Bulletin you will see the first fruits of the advertising campaign which has been waged by the Secretary for the past few months.

There have been buds and even blossoms before; pretty to look at, and filling the soul with that hope that keeps things moving when nothing more substantial is in sight, but it remained for the irrepressible Phil Easterday to bring into view the first sight of the fruit of the campaign—a really, truly advertisement for which he is willing to pay the established rate, which will help to keep the Bulletin going in spite of the ever increasing cost of paper and ink.

Mr. Easterday, you should know if you don't already, makes concrete pipe—the "permanent as the pyramids" kind. You will see it all along the Pacific Highway to the north, if you look to see what the engineers of our sister states have been doing in the way of providing means for getting the water across the road, and you will have the feeling that

these engineers are looking to the future needs of the roads which they are building, as well as the present cost.

If you do not know Mr. Easterday or his pipe, by all means make their acquaintance without delay.

You will like them.

CIVIL SERVICE, AND

OTHER THINGS

Civil service, no doubt, is far preferable to the system of dividing the available jobs after each election among the most active politicians as a reward for their activity.

The feeling of permanence helps the employees to plan for the future, and even though the salaries are not all that might be desired, and the work is, in many cases uncongenial, there can be little doubt as to the results obtained.

But it would seem that in the light of recent knowledge, something better is being evolved. I refer to the scientific employment departments being established in many large modern plants.

A very instructive article on this subject by Burton J. Hendrick appeared in the Christmas number of Harper's Magazine. The title is "Fitting the man to the job," and whether you are employing a thousand men, or are merely doing your best to hold the job which a kind Providence has placed for your use, you should get the magazine and read it.

The city, the county, the state, and the national government should all be progressive enough to adopt this method of handling the many men and women who are giving their lives

to the service of their country in any of these organizations, and possibly, because poorly placed, are giving less than half the service which they might if put in the one position for which each is best fitted.

This is a subject which will bear a lot of investigation, and to which all who labor or employ others, should give much study and careful thought.

LOST OR STRAYED.

Mail sent to the following addresses has been returned:

Anyone knowing the correct addresses of these persons will confer a great favor upon the Secretary by giving him this information, and doubtless these men would like to continue to receive the literature issued by the Society.

Willard Y. Nelson, 412 Fifth Street, Oregon City, Oregon.

C. A. McClain, 1033 High Street, Eugene, Oregon.

S. E. Henderson, Coquille, Oregon.

I. Chaimovitsch, 429 Lumber Exc., Bldg., Portland, Oregon.

Of course it is a great compliment to the Secretary to suppose that he knows the whereabouts of everybody belonging to the Society, and what he is doing, but he finds that his other duties are such that this class of detective work is more or less interfered with. Your help in the matter of getting mail to those who are either too busy or too careless to notify the Secretary of changes of address, will be greatly appreciated by that individual.

If you request it, he will send you a perfectly good postal card to repay you for the one used in sending the information.

REGULAR MONTHLY MEETING OF THE OREGON SOCIETY OF ENGINEERS AT THE CHAMBER OF COMMERCE.

(LADIES' DINING ROOM)

Friday evening, January 19, 1917, at eight o'clock P. M.

Twenty-five members and guests were present when the meeting was called to order by Mr. P. H. Dater, third vice president.

The minutes of the meeting of Dec. 22 were read, and were approved without change.

The amendment to the Constitution proposed at the last meeting by Mr. Cunningham was read again and discussed. It was decided to vote on it by paragraphs.

The first paragraph—Article IX, Section 1, under "President" change to read "elected for a term of one year" was, upon motion, adopted.

The second paragraph—Same article and section following "Three Vice-Presidents" change to read "The Vice-Presidents are not eligible to immediate reelection to the same office," was lost when put to vote, there being no affirmative votes.

The Secretary read a resolution passed at a meeting of the Executive Board Jan. 19, at noon, as follows: "That the Society reinstate delinquent members on payment of one year's back dues."

Mr. Cunningham moved the adoption of the following resolution:

RESOLVED, That the Oregon Society of Engineers endorses the model Highway Code suggested by the U. S. Office of Public Roads insofar as it provides that an engineer, the State Engineer, shall be a member of the Highway Commission. Also

RESOLVED, That the Secretary be directed to transmit a copy of this resolution to Mr. Laugaard, the only representative of the engineering profession in the Legislature, and that he be requested to support this portion of the Highway Code.

Upon being put to vote, the resolution was carried unanimously.

Mr. Geo. E. Reed was then introduced by the Chairman, and spoke on "Mechanical Ventilation of Buildings."

He was followed by Mr. Jay R. Keller who discussed "Types of Heating Systems for Different Buildings."

The papers were discussed by Mr. Hunter, Mr. Blood, Mr. Brolli, Mr. Gongwer, Mr. Merwin and others.

Mr. Merwin invited the Society to visit the plant of the Northwestern Electric Co. in the Pittock Block.

Mr. Blood moved a vote of thanks to the speakers, and it was unanimously adopted.

There being no further business, the chairman declared the meeting adjourned.

ORRIN E. STANLEY,
Secretary.

CHANGES OF ADDRESS

To bring your year-book up to date the following changes and additions should be inserted.

CROCKER, F. W., 68 Emmett St., Dayton, Ohio.

DUBUIS, John, 18 Ainsworth Building, Portland, Oregon. Consulting Engineer. (January, 1913.)

DUNLAP, E. F., 1610 Fowler Street, Portland, Oregon. City Electrical Inspector. (December, 1914.)

ELLIOTT, John A., The Dalles, Oregon. District Engineer, Oregon State Highway Commission. (August, 1915.)

KNOPF, Carl Lafayette, 1292 Huntley Avenue, Columbus, Ohio.

JORDAN, Calvin A., Pendleton, Oregon.

FORSTER, Fred H., Tangent, Oregon.

EASTERDAY, Phil, 916 Board of Trade Building, Portland, Oregon. Manufacturer of Reinforced Concrete Pipe. (November, 1916.)

GELLER, C. W., c-o Eugene Water Board, Eugene, Oregon. General Superintendent and Secretary of Eugene Water Board. (November, 1916.)

MERRILL, Raymond Ernest, c-o State Highway Commission, Trall, Oregon. Levelman and Draftsman, Oregon State Highways. (November, 1916.)

REED, Geo. E., 303 Court House, Portland, Oregon. Mechanical Engineer, School District No. 1. (November, 1916.)

THOMAS, Carl F., 603 East 61st Street North, Portland, Oregon. Draftsman, S. P. & S. Ry. & O. E. Ry. (November, 1916.)

ANDREWS, W. T., 410 Beck Building, Portland, Oregon. Logging Engineer, U. S. Forest Service. (November, 1916.)

HYLAND, Virgil L., 112 East 79th Street North, Portland, Oregon. Axman, O-W. R. R. & N. Co. (November, 1916.)

GOLDMAN, Otto B., Corvallis, Oregon. (August, 1915.)



The Phil Easterday Reinforced Concrete Pipe

"THE OLDER IT GETS THE STRONGER
IT GETS"

"Permanent as the Pyramids"

1108 Board of Trade

Marshall 1632

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BULLETIN

No. 15

PORTLAND, OREGON

February 23, 1917

MOTION PICTURES

From ore to the finished "National" Pipe will be shown at Library Hall, Tuesday evening, February 27th, 1917, at eight o'clock, to the Oregon Society of Engineers and their friends.

This three-reel feature has been found interesting and instructive by the thousands who have seen it in the many cities throughout the country.

Mr. O. M. Ash will act as ring master, introducing the pictures and putting them through their paces in the most approved manner.

There will be seats for all.

Bring your family or friends and come early.

Admission is free.

OFFICERS

H. L. Vorse, President
 J. C. Stevens, 1st Vice President
 Philip H. Dater, 2nd Vice President
 J. P. Newell, 3rd Vice President
 Henry M. Morse, Treasurer
 Orrin E. Stanley, Secretary

DIRECTORS

A. E. McKennett	J. R. Thompson
Wm. S. Turner	F. A. Naramore
John R. Penland	Douglas W. Taylor
John W. Cunningham	L. F. Harza
O. Laurgaard	

CHAIRMEN OF STANDING**COMMITTEES**

Harold A. Rands, Nominating
 _____, Membership
 Albert J. Witchell, By-Laws
 Elmer C. Strayer, Library
 _____, Program
 J. W. Cunningham, Public Relations
 Percy A. Cupper, Legislative
 Robt. E. Cushman, Publicity

YOUR STORY, PLEASE.

Our readers have to thank Mr. Cunningham for breaking for a second time the monotony of style forced upon the Bulletin by the other members of the Society.

Its columns are open for the discussion of subjects for the good of the profession, and especially that part of the profession belonging to the Oregon Society of Engineers.

Mr. Cunningham's article is in this class.

The magazine which he recommends cannot help but broaden its readers, be they the engineers themselves or their families, and the suggestion made by Mr. Cunningham, that the publications of our Society be made more interesting is worthy of the most careful consideration.

Our Journal has been in demand by engineers all over the United States. This is because of a technical article which appeared in the first number, a short notice of which appeared in a magazine of national circulation.

The demand for it could be increased, and its usefulness made much greater by the publication of articles dealing with the human side of engineering. There are many of these to be had among the members of the Society, and if the members will not loosen up on them of their own free will, it will have to be one of the

duties of the Publication Committee to dig, pry, jar, blast, or otherwise separate these stories from their containers and expose them to the public gaze for the public good. For no one will dispute the statement that the experiences of the older men in the profession will benefit the younger ones, whether the older men were failures or successes.

We cannot pay for these articles. We consider it your duty, and you should deem it a pleasure to thus assist those who are to be the engineers of the present and future generations.

THE BI-WEEKLY LUNCHEONS

Your attention is called to the report of the committee in charge of the Bi-Weekly Luncheons for our Society, which appears elsewhere in this issue.

Notices of these noon-day meetings have been sent regularly to such of our members as are residents of Portland to the number of 166, and only 58 of these have ever attended a luncheon. We are now taking 84 names from the mailing list, leaving still 24 who have not yet taken advantage of this opportunity to meet for a few minutes every two weeks, the members of our own society as well as the "live wires" of the local branches of the Electrical Associations. If these twenty-four men do not rise to the occasion within the next few weeks, it will be in keeping with the policy of the Society to drop their names, also, from the list, until such time as they signify their desire to again receive these cards.

All members of the Society are welcome to attend these luncheons, whether they receive the cards or not, and if any one who is not getting the notices wishes to have them sent to him, a request to the Secretary will get his name on the list as long as he wants it kept there.

It is not the wish of the Board to slight anyone. It is simply trying to save you the annoyance of throwing one more postal card in the waste basket, while at the same time reducing the "overhead" expenses of the Society.

Do you favor this policy?
 Thank you.

A CLOSE SHAVE

A man edged around between me and the door, not long ago, leaving a straight drop of four stories as the only avenue open for escape, and asked, "Are you the man who writes the stuff for the Bulletin?" There was nothing to do but own up to the charge, and prepare to take the consequences.

To date, the consequences have not been severe, nothing worse than the necessity of hiding the modest blushes while being complimented upon the quality of matter contained in the Bulletin. But if the condition as set forth in a letter received a few days ago becomes much worse, some employer may get out a restraining order, either prohibiting the publication of the paper entirely, limiting its size, or requiring that it be delivered only after working hours.

This is it:

"As to the literature (of the Society) I wish to say that I enjoy reading it, especially the 'Bulletin,' which is always full of good things. Whenever I get it, no matter what I'm doing, I always have to stop and read it."

It is the intention to make the Bulletin readable and helpful to all engineers, and especially the younger ones in the Oregon country, and if the readers have anything concealed about their mental storerooms which they think will further these aims, it is an obligation that they owe to the profession to contribute such for the general good.

"Do your bit."

FROM THE MONAD.

The "Official Pessimist" of the Monad gets the following sentiment out of his system in a recent article.

"ENGINEERS AND N. G. NEARS! DO YOU KNOW

That the cold, hard dollar is the final answer of every engineering problem?

That engineers must engineer their own economic problem by co-operation similar to those used by employers?

That no one engineer is capable of

solving the economic problems of engineers?

That knocking the work of other Engineers lowers the respect of the layman for your profession?"

OREGON SOCIETY OF ENGINEERS

Report of the Treasurer for Fiscal Year
Ending January 31, 1917.

Money on Hand Feb. 1, 1916—

Bank checking account\$216.38
Bank Savings account..... 515.07 \$731.45

RECEIPTS—

Active members—	
Back dues	\$102.00
1916 dues	756.75
Advance dues	11.25
Associates—	
1916 dues	20.00
Advance dues	2.50
Junior members—	
Back dues	5.00
1916 dues	34.40
Advance dues	4.65
1916 dues, students	3.00
Total dues	\$939.55
Sale of badges	\$ 24.60
Sale of JOURNALS	1.50
Advertisements in Journal	45.00
Journal of Associated Engineering Societies (O. S. E. share of surplus).....	67.99
Total cash receipts	\$1078.64
Interest on savings account.....	15.55
Total credits	\$1825.64

EXPENDITURES—

Salary of Secretary.....	\$140.50
Stenographic work	70.53
Stationery and printing.....	59.52
Postage and telegrams.....	157.44
Entertainment at meetings	24.05
Meeting places	10.00
Dinners and smokers.....	53.25
Manufacture of badges.....	24.00
Publication of Journal and Bulletin	242.75
Postoffice box rent	12.00
Advertising	2.86

Total expense\$796.90

BALANCE ON HAND—

In bank—savings account.....	\$530.62
In bank—checking account.....	378.37
Checks not deposited	79.75
Current expense fund in hands of Secretary	40.00
Total on hand	\$1028.74
	\$1825.64

HENRY M. MORSE,
Treasurer.

ADDRESS BY MR. VORSE.

As President-elect and chairman of the Publication Committee H. L. Vorse spoke as follows:

Six years ago tonight this society was born. At that time you honored me greatly with your permanent chairmanship. Tonight you again honor me, and this time the greater because of your Society's many accomplishments. Close personal touch with the membership shall serve you well indeed for it shall be my purpose to discover each individual member and to wrench him from his reticence; to direct him into the Society's activities; to use our Society to give him growth. Scores of our men are waiting to suggest ways and means for our own upbuilding. Credit here redounds to past administrations for creating these favorable conditions. Theirs it was to do the pioneer work of establishing this Society. To them we are grateful for having built it upon a rock. Just as in history we watch the nation grow strong—watch it develop into a powerful, organized but untried force—so might we have seen ourselves growing until today we have arrived at that point in our development when we must take account of our resources, enunciate our purposes and measure carefully our fitness to enter the councils of a society which ever is ready to do us honor, and reverence our work, will we but enlist ourselves in the contest for greatness and conform to the rules of the game. Doing these, all things legitimately ours shall be ours, and when wisdom decrees a thing cannot be done you may sense wrong; for, remember, that no human undertaking, because of mere immensity, can render insignificant our aid and endorsement if that project is right.

And so it is we find ourselves at this important juncture of our organization ready to do, ready to serve, ready to initiate progress in the upbuilding of our state and nation. Perhaps no time could have been more opportune for us than the present, for the pronounced shift in the public mind the world over has uncovered so many new conditions which mean as many opportunities for usefulness.

Now, to better ourselves for the work before us the Society should choose as leaders and aides those men who have worked and are working consistently and energetically for its upbuilding. It shall be my aim and constant purpose, insofar as appointive power shall extend, to put men of action into places where action is required and those of mature judgment and preparation where sober thought is necessary, and this distinction shall not hinge upon age but upon actual performance in and for the Society. All branches of engineering are represented in this organization, so it follows that every branch shall be called upon to produce its quota of effort for our common good.

Only after a thorough consideration of the man for the work will a committeeman be named, then the man so chosen shall be kept occupied. Committeemen frequently will be asked to meet with the directors for the purpose of discussion. All live topics may be considered and general plans will be formulated for the several campaigns we expect to initiate this year.

A year ago, at your instance, your Publication Committee undertook the editing of a periodical which we have called the Journal of the Oregon Society of Engineers.

Immediately on entering upon this work it became necessary to determine its scope and purpose. It was not difficult to see that to maintain a publication merely for the printing of papers which had been and were likely to be read before the Society meant nothing at all because there never had been produced more than six or eight such papers per annum which could, if it were desired, be printed in the form of a transactions when enough matter had accumulated to make a reasonably good volume. Turning from such a thought we were confronted with the task of making the Journal what you gentlemen are pleased to call a going business as well as an independent, living force exerted toward the upbuilding of the Society. To serve the Society in the fullest and to give growth and influence to our organization, it is essential that the Journal find a wide distribution outside our membership. Accordingly we have aimed at publishing

certain articles which are deemed of very general interest—that is, entertaining or instructive to men and women everywhere and not necessarily affiliating with us.

Now, if we can create such a demand for our publication we will at once have at our command a means by which we may capitalize our merits; sell what we have to sell; convert an honest value into a true service. Through this same means we can develop in many an individual member the knack of expressing an idea. This is important. A man may have the technical training, a splendid imagination, and be a man of expedients, yet through a lack of ability to set himself before the reading public in splendid, forceful English, remain, as most of us are, hired men, instead of advancing to that class known as the profession.

The Society is without a purpose if it be not to extend its power to organize and shape public opinion, and to this end the Society is very fortunate in having fairly succeeded in the establishing of two publications—the Bulletin, which appears monthly, and the Journal, a quarterly. The former, in eleven issues of seventy-one pages, cost \$140.00 for printing, \$77.00 for mailing, total \$217.00. It is believed no member begrudges the money paid for this paper, however, it is going to be possible to reduce its cost in the future without impairing its value. This value is no imaginary thing. The Bulletin enables us to place before the member a mass of information meant only for the member and therefore not deemed of interest to the general reader.

The Journal affords a different service—the opportunity of getting before the public.

We purpose sending the Journal to all libraries within the state; to all engineers on the coast; to all engineering organizations in the nation and to solicit discussion from engineers. We also want to place the Journal in the hands of as many general readers as possible and to that end we are mailing it out to libraries, universities, commercial organizations and individuals. The three numbers of the Journal issued, with 106 pages of reading matter, have earned in advertising

and sales about what they have cost, i. e., No. 1 showed a net cost to the Society of about \$43.00 (gross cost \$93.00, advertising \$50.00); No. 2 cost paid by receipts from advertising. (Thanks to a suggestion from Mr. Stanley.) No. 3 net profit about \$40.00.

Speaking of the future, we believe it is possible to make the Journal pay the cost of the Bulletin.

The rapid development of interest in these publications among the members is certainly gratifying. Men who say they have never before written an article for publication have come forward with splendid articles. In several instances these articles are distinctly new and consequently will be discussed in many circles once they are published.

By increasing papers we augment discussion; more discussion begets better papers and a more worthy Journal. By this means we can draw more out-of-town men into our membership.

As chairman of the Publication Committee the delight in speaking of its personnel is mine. President Wm. S. Turner, Treasurer Henry M. Morse, Secretary Orrin E. Stanley and Director J. R. Thompson have lent themselves freely and amply in counseling, canvassing, contributing and proof reading, as well as to the scores of lesser details which crop out everywhere in a new work of this kind. To your expression of gratitude I commend these gentlemen; to your approval their work, for they have labored in the atmosphere embodied in Kipling's beautiful lines:

And only the Master shall praise us.

And only the Master shall blame;

And no one shall work for money,

And no one shall work for fame;

But each for the joy of working,

And each in his separate star

Shall draw the thing as he sees it

For the God of things as they are.

So, as engineers, we have had to evolve expedients; we have had to draw upon our imaginations as we would pour water from an open barrel; we are expecting, and not in vain, you technically trained men to produce a literature such as shall appeal strongly to that vast container of our fates and fortunes—the public.

THE NATIONAL GEOGRAPHIC SOCIETY.

By John W. Cunningham

In view of the way that Secretary Stanley has been boosting the Lefax publications to the members of the Oregon Society of Engineers, he will hardly have the nerve to refuse a little space for boosting in another direction. Surely what follows can hardly be construed and charged for at the exorbitant advertising rates of the Bulletin, since it relates to the work of another scientific society, with aims as high, not to say visionary, as our own. We have already within the Oregon Society of Engineers many who are also members of the National Geographic Society, and who can vouch for the accuracy of any statements which may be made.

The National Geographic Society is the largest scientific society in the world, having at the present time over three hundred thousand members. Its purpose is the collection and dissemination of geographic knowledge. Up to a few years ago, its membership was confined to a few spectacled scientists, mainly in the government departments at Washington, D. C. The Society at that time published annual volumes of "TRANSACTIONS," which were as dry and perfunctory as the average transactions of an engineering society, the name of which need not be mentioned. Then there was presented the idea of increasing the popularity and at the same time broadening the influence of the society by letting down the bars for membership, and increasing the interest and readability of the "TRANSACTIONS." Like all progressive movements, this was opposed by some of the old-timers in the society, who objected to the admission of laymen to membership, and to popular articles in the "TRANSACTIONS" as being "unethical," etc. The progressive element in the Society, however, prevailed, which is the reason for its now being the largest scientific society in the world.

The dues of the National Geographic Society are \$2.00 per annum. The money thus obtained is employed in two directions: One is the sending out

of expeditions in search of geographical knowledge, and the other is the publication of the National Geographical Magazine, which constitutes the official "TRANSACTIONS" of the Society. It is natural that with such a huge circulation and attendant advertising, together with the fact that most of the articles are contributed free of charge, and there are no profits to be distributed, this magazine is a very readable affair, in fact, viewed from the ground of value received, there is no expenditure which a man can make which will secure him more for his money than a membership in the National Geographic Society.

The National Geographic Magazine is a publication issued twelve times a year, and having an average of perhaps 150 pages with each number. Its articles are by the best known travelers and men of public affairs. The crowning feature of the publication, however, is its illustrations. Each number is filled from cover to cover with the most perfect of half-tones, photogravures and colored plates, collected from all parts of the world; each of which tells a story which would require two or three pages of printed matter to duplicate. The magazine also publishes at frequent intervals large illustrations which are really works of art, and are suitable for framing. In addition they issue once or twice a year maps of portions of the world which are in the public eye. Recent maps were of the European war zone and of Mexico. These maps are very much finer than the ordinary atlas map, and are to be compared for excellence with the government topographical sheets.

The writer is going to take the liberty to send in to the National Geographic Society a copy of the directory of the Oregon Society of Engineers, and to nominate those listed, each and severally, for membership in the National Geographic Society. There are no commissions or rake-offs to be secured by anybody from the National Geographic Society, so that the writer need not blush if he urges that when each member of the Oregon Society receives notice of his nomination, he immediately sit down, write out a check for \$2.00, and send it in with his

application for membership, with the full assurance that he will be better pleased with this than with any other two-dollar investment he ever made in his life.

Incidentally, the Oregon Society may well give attention to the causes and effects relating to the enormous growth of the National Geographic Society which was founded upon its publication. The publication committee of the Oregon Society of Engineers, and notably Mr. Stanley and Mr. Vorse, the respective editors of the Bulletin and the Journal, have gone far toward making both these publications not only scientific but readable. The Oregon Society will gain in influence as fast as they get these publications read by outsiders, and their contents noted and copied by other publications. We should support the efforts of our publication committee in securing this end, and in making our Engineering Society, both in numbers and in influence, one of the most powerful factors in public affairs of the state.

REPORT OF CHAIRMAN OF THE BI-WEEKLY LUNCHEON COMMITTEE

On October 4, 1916, President W. S. Turner appointed F. D. Weber Chairman of the Luncheon Committee, with the right to appoint two other members, but as the labors were very light, he has never asked any of the membership to aid him on this Committee.

Mr. Turner's instructions to the writer were "to act for the Oregon Society of Engineers in co-operation with the A. I. E. E. and N. E. L. A. in the matter of holding noon-day luncheons during the coming season and to take such action as may seem desirable."

Prior to this time a Luncheon Club of the Local Sections of the A. I. E. E. and N. E. L. A. had been in existence, and the Oregon Society of Engineers had been asked to join them. Consequently, on October 27, 1916, the representatives of the various societies met, and the method of handling the program and expenses was discussed.

It was decided that the luncheons should be held in the Orange Room of the Oregon Hotel and the various organizations be assigned dates on which they would be responsible for the program.

The representatives present represented the Local Sections of the A. I. E. E. and N. E. L. A. and the Oregon Society of Engineers.

It was also decided to notify 160 members of the Oregon Society of Engineers on printed postal cards, sent out by Mr. Schoolfield, secretary of the N. E. L. A., for which the society was to pay 3 cents per name per notice.

The system Mr. Schoolfield used consisted of a card index system, the cards for which bear on one side the name and address of the member and on the reverse, a "Record of Attendance," having spaces for recording the attendance at forty-two luncheons and an equal number of special meetings.

To carry out this system, it was necessary to have another card which the member, filled in properly, wore during the luncheon and left with the secretary at the close of the meeting. These were also kept in an indexed box. These cards have space for the wearer's name and that of the organization for which he works, followed by the suggestion:

"Let's Come Again."

This record is very valuable as we now have a complete check on the Oregon Society of Engineers' attendance at the luncheons, exclusive of members who belonged to other organizations and received cards from these organizations.

The record is as follows:

31 members have attended 1 luncheon
16 members have attended 2 luncheons
4 members have attended 3 luncheons
2 members have attended 4 luncheons
3 members have attended 6 luncheons
2 members have attended 7 luncheons

The luncheons were held on the following dates:

October 25, 1916.

November 8, 1916.

November 22, 1916.

December 6, 1916.

December 20, 1916.

January 10, 1917.

January 17, 1917.

January 31, 1917.

February 14, 1917.

The Oregon Society of Engineers furnished the following programs:

November 8, 1916—

Fred F. Henshaw—"Geological Survey." "Hydrometric Work in Oregon."

N. G. Pike, Pres. Portland Rotary Club—"Unity of Purpose."

December 20, 1916—

C. U. Gantenbein, Judge Circuit Court, Dep. 6, Multnomah County—"The New National Defense Act."

The Executive Board of the Oregon Society of Engineers passed the following motion:

"That the Luncheon Committee be instructed to use his judgment in cutting down the list to whom notices of the luncheons shall be sent, it being the suggestion of the Board that the names of those who have never attended the luncheons be taken from the list, and that the names of new members of the Society be carried on the list for at least a month after admission to the Society, before being dropped. A further suggestion that the cards worn at the luncheons by members of the Oregon Society of Engineers bear the statement that they are members of this Society."

In view of the above motion your Chairman has recommended that the names of eighty-four members who have not attended any of the luncheons be stricken from the list of the Secretary of the N. E. L. A., and receive no more postal card notices.

Your Chairman feels that this may not be a wise course as the members may feel that this service is due them whether they elect to attend or not, and that their dues entitle them to this courtesy.

As regards the question "of having cards worn at the luncheons by members of the Oregon Society of Engineers bearing the statement that they are members of this Society," the writer has been advised that this can be done but the Society will have to stand the expense of printing. Also your Chairman feels that this is a refinement that will tend to cause confusion as the membership overlaps into the two other Societies.

Meetings are scheduled until April 25th, 1917. Next Oregon Society program March 14, 1917.

F. D. WEBER.

SECRETARY'S REPORT

Orrin E. Stanley.

On account of a rush of work the other day, Nick called up his home to explain why he would not be home to dinner at the usual time, and to be better understood by the lady of the house, switched in the middle of his conversation from "English as she is spoke" to his mother tongue. This caused his partner, Mike, to sit up and take notice, and after listening in silence for a time, he broke out, "Listen to my old colleague, will you? And they tell me that some folks can understand that kind of talk!"

I will not presume to state that anyone will be able to understand this report, the only excuse for which is the clause in the Constitution requiring the Secretary to prepare one for the annual meeting; so here it is.

During the year just past there have been ten regular monthly meetings of the Society, no meetings having been held in June or August.

The attendance at these meetings varied from 80 at the October meeting to 25 in January, the average being 45. This takes no account of the lecture by Mr. Finley, which followed the last annual meeting, at which about 150 members and guests were present.

Amendments to the Constitution were adopted creating the grade of Student Member, changing the method of admitting members by doing away with the letter ballot, and another, limiting the term of President to one year.

The Executive Board held ten regular meetings, there having been none in May or June. The attendance varied from five to nine, the average being six and a half.

Among the matters discussed by the Board were: The question of permanent quarters, which was tabled; the work of the Publication Committee, which was authorized to proceed with the publication of the Journal and the Bulletin; the reinstatement of delinquent members, who were authorized to be restored to good standing on payment of one year's back dues in addition to the dues for the current year; the subscription price for the

Journal, which was placed at fifty cents, and that amount authorized to be set aside from the dues of each member; and the increase of the Secretary's salary, which was restored to the amount paid in the early life of the Society.

The Executive Board is a hard working body. It never sleeps, so it can't work then, as do some busy little bodies of which we read, it therefore must work while it eats. That is, its meetings are usually at luncheons, and thus it combines business with pleasure.

There were 28 active members, 13 junior members, 6 associates, and 9 students admitted to the society during the year, making a total of 56 additions to the membership.

Only three, I believe, resigned after the manner set forth in the Constitution for so doing, and of the many who have fallen by the wayside, either from lack of funds or from lack of interest in the Society, perhaps the less said at this time the better. May peace be with them; and when they begin to regret having failed to listen to the frantic appeals of the officers of the Society for their dues and their interest in the organization, I hope that they will not be too diffident to come forward and ask for reinstatement.

No adequate records of the work of the Employment Department have been kept, but it is some encouragement to be able to say that there have probably been more than double the number of calls for men this year than in any previous year, and we have been able to furnish a man for nearly every position that was offered.

Some of the places have been of a high grade, but many were simply "jobs" and the pay offered was as such.

There have been some instances of men leaving places for others which were better paid, or appeared to be more permanent, or better suited to the qualifications of the men making the changes, but by far the greater number have been jobs of such temporary nature that it would not pay a man to leave a place where he was earning a living to accept them.

This is a sad state of affairs, especially when we have to sit by and watch the prices of everything that we buy go soaring skyward, but we seem to be doing little to bring about a better condition.

If each man can get into the position which he is best fitted by nature and by training to fill, his work will be a pleasure for him. This should be his first aim. He will then be able to do his work so much better than it has ever been done before that he will merit greater reward and will receive it.

Find your proper place in the world and then stick to it against all odds. But first be sure that you find it.

A member who attended the January meeting was heard to remark that it was the most "human meeting" that he had ever taken part in.

I think that the reason for this was the general discussion following the reading of the papers of the evening, and further, the fact that members who were not conversant with the subjects discussed asked questions bringing out answers which helped others as little informed as themselves to get a better idea of the matter in hand.

Eleven numbers of the Bulletin, a total of 71 pages, were issued.

The first issue of the Journal, which appeared at the annual meeting a year ago was not followed by a second until late in the year. The third number, in many ways the best, has just made its appearance.

It is proposed to issue the Journal regularly four times a year hereafter, and to make it an up-to-date, readable magazine for engineers.

The editorial work, which is enormous in quantity, has been practically all done by Mr. Vorse, who has been untiring in his efforts to make the Journal what you have seen it to be, and what it will be in the coming year.

Persistent effort and no small amount of tact are required to secure the contributions, after which comes the proper arrangement of the matter in the Journal, after which comes the dickering with the printers.

Mr. Vorse has succeeded in putting the Journal on a self-supporting basis, and if the price of paper does not go too high, it may even be a source of profit to the Society, as well as a magazine of which we will all be proud.

"S. O. S."

"What would you do if you had not had a job for ever so long, no money coming in, and loaded up with property for which there is no sale, but taxes to be paid as usual, and you still wanted to belong to the Oregon Society of Engineers?"

Such is the appeal which comes from a loyal but (temporarily) unfortunate member, and the question is a hard one to answer.

What would *you* do?

ENGINEERS FOR COMMISSIONERS

Portland will soon pass through the throes of a bi-annual political upheaval.

Two commissioners and a mayor are to be elected.

Why should not these three men be engineers?

Our Commissioner of Public Works is now an engineer. You have watched his work and know how well he has succeeded.

You have seen the improvements made by an engineer in the sheriff's office. The tax-collecting department of that office has been so systematized that it is a pleasure to pay one's taxes now rather than the nightmare that it was in former years.

Engineers are trained to handle business in a systematic manner, and there is no department of the City which cannot be handled as well if not better by an engineer than by a man of any other profession.

BOUQUETS

When we can pat ourselves on the back at the same time that we are paying a well deserved compliment to another, we take unusual delight in paying the compliment.

Such an occasion is now ours.

Several months ago the Journal of the Engineers Club of Baltimore came to our desk in a new dress—a dress not only new, but so distinctive that we felt at once that it must be the work of the Waverly Press of Baltimore. A hurried glance through its pages failed to reveal the imprint of that house, but so firmly was the notion imbedded in our mind, that another, and still another search was made until we made sure that our first impression was correct.

To have a society's proceedings printed by the Waverly Press of Baltimore, is of itself quite a distinction, for it means a uniformly good appearance of the Journal. Mentally we complimented the editors upon their good judgment; but like many another, we did not allow an inkling of our good opinion to find its way to Baltimore, nor in fact, anywhere outside of the fabled editorial sanctum.

But now that the editors of that nicely gotten-up Journal have seen fit to copy two articles from the Oregon Society of Engineers Bulletin, we can not longer keep secret our good opinion of them.

They certainly must be an able group of men, and we hope that the members of their club have the good judgment to appreciate them at their true worth, and the good sense to tell them tactfully of this appreciation once in a while.

They will do better work for it, and the members will, after unburdening themselves, feel a comfortable glow in the region of the heart.

Such a program cannot help but be a great benefit to all concerned.

**MINUTES OF THE ANNUAL MEETING
OF THE OREGON SOCIETY OF EN-
GINEERS AT THE UNIVERSITY
CLUB, FEB. 5, 1917, AT 6:30 P. M.**

Sixty members of the Society and guests assembled in the dining room of the University Club, Monday evening, Feb. 5, 1917, to celebrate the beginning of the seventh year of the Society.

During the excellent dinner music was furnished by the orchestra. The tables were decorated with carnations and roses.

After dinner, President Turner called the meeting to order and read the report of the tellers of the annual election of officers. For president, H. L. Vorse; for third vice president, J. P. Newell; for secretary, Orrin E. Stanley; for treasurer, Henry M. Morse; for directors, J. W. Cunningham, L. F. Harza and O. Laurgaard; for nominating committee, Harold A. Rands, H. E. Plummer, C. P. Keyser, H. B. Hastings, R. G. Dieck, W. P. Hardesty, R. E. Cushman and R. J. Grace.

The treasurer's report, read by Mr. Morse, showed an income for the year of \$1094.19, expenses of \$796.90, balance on hand, \$1028.74, being an increase of \$297.29 over the amount in the hands of the treasurer at the beginning of the year.

The secretary's report gave the number of meetings held during the year as ten with an average attendance of 45, varying between 30 and 25.

Short reports by the chairmen of the Membership, Program, Civil Service, and Legislative Committees were heard, after which the orchestra played a short selection.

The following amendment to the Constitution was proposed:

ARTICLE IV. Section 3. Change to read "Each month in which there is a regular meeting the Secretary shall mail to each member of the Society a list of all candidates for admission or transfer, whose applications are on file in his office a week before the date of the meeting. This list shall contain the name, address, and business of each candidate, and such additional data abstracted from his application, as will enable the members to judge of the candidate's fitness for admission or transfer. With each such list will be sent a request to the members to furnish additional information concerning the candidates which will assist the Membership Committee in properly classifying them."

Section 4. Change to read "Qualifications for membership of each applicant shall be thoroughly investigated by the Membership Committee and its findings reported to the Executive Board on or before the date of the regular monthly meeting of the month following that in which the list was published."

An announcement of a meeting of the Electrical Engineers for the following evening was read by the Secretary. Also a letter from Mr. Hollis W. Libby of Eugene stating that he had need of a man on road construction for the summer.

Mr. Vorse, chairman of the Library and Publication Committees, read his report, telling of the publication of the Journal and the Bulletin.

President Turner then summed up the year's work in a brief address, at the close of which, Mr. Dater moved a vote of thanks to Mr. Turner for the work which he had done for the Society in the two years which he had been its President. This was carried unanimously.

The meeting was then turned over to Mr. Vorse, who as chairman of the Publication Committee had arranged a program of discussions of the papers printed in the Journal, and of other subjects of interest to engineers.

Mr. J. P. Newell explained the terms of H. B. 213, known as the Highway Code, and gave reasons for the adoption of new and effective road legislation.

This was discussed by H. L. Vorse, F. O. Brolli, C. P. Keyser, John R. Penland and F. I. Fuller.

Mr. F. L. Griffin, Professor of Mathematics at Reed College, discussed Prof. Goldman's paper "The Engineer and Mathematics." Others discussing this subject were O. E. Stanley, H. L. Vorse and O. B. Goldman.

Dr. W. F. Amos gave a brief talk on "Compulsory Vaccination" which was followed by questions and discussion by D. Loring, O. E. Stanley, R. E. Cushman, Dr. Amos, S. B. Phillips, J. R. Thompson and W. P. Hardesty.

Mr. Otto B. Goldman and Mr. John A. Rockwood discussed rate making problems.

Mr. J. R. Thompson spoke on "Value" as defined by Mr. Newell in the Journal.

"Boiler Corrosion" was the subject of a short talk by Mr. Mark R. Colby.

Mr. Vorse asked for a general discussion of the periodicals issued by the Society. Mr. Hardesty, Mr. Phillips, Mr. Stanley, Mr. Noble, Mr. Reed and Mr. Weber took part in this discussion.

Mr. Phillips suggested the desirability of uniting with the other engineers of the city in a technical club. He was appointed a committee to investigate means for accomplishing this. Mr. Turner offered to assist.

Mr. Brooks spoke in favor of Club Rooms and was instructed to investigate the matter and report what he thinks can be done.

Mr. McGonigle moved that the matter of Road Legislation be referred to the Executive Board. Carried.

On motion, the meeting adjourned.

ORRIN E. STANLEY,
Secretary.

WHEN you have something to say to the
Engineers of the Oregon Country
tell it to them in the BULLETIN.

This is the paper which is read by all, and this
is the paper that is all read.

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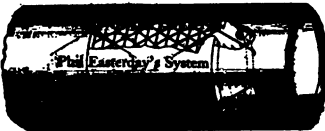
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MAR 17 1917



BULLETIN

No. 16

PORTLAND, OREGON

March, 1917

THE NEXT MEETING

Of the Oregon Society of Engineers
Will be held in the office
Of the Northwestern Electric Com-
pany

In the Pittock Block,
West Park Street
Between Washington and Stark Sts.
Friday Evening, March 16
At Eight O'clock.

Mr. L. T. Merwin
Superintendent of the Northwest
Electric Co.

And his assistants
Will conduct the members
And their friends
Through the Company's plant
In the Pittock Block,
And when we have returned
To the office
Where quiet reigns
Will answer such questions
As may have occurred to you
During the inspection trip.

Of course you are not interested
In central heating plants
Or in electrical plants,
Though you should be
For the gardening season is at hand—
Ouch! I didn't mean any harm.

"Now, listen, dear"
As a woman said to me
The other day
Over the 'phone
When she wanted to kick
About a stopped up drain;
Let me tell you a thing or two.
Once in the dim and distant past

I went fishing.
There were catfish in the stream
And they're there yet
Or have died of old age
If some one else hasn't caught them.
And from that time 'till now
The wily cod fish
In the grocer's store
Or the fried salmon
At the restaurant
Are all the fish
Which I have caught.
But the other night
I went to a lecture
By David Starr Jordan.
He talked of fish.
And he knows what he is talking
about
Whether it is fish
Or peace
Or war,
And when I had listened to him a
while
I knew more about trout and salmon
Than I thought there was to know
About all the kinds of fish
That Noah brought over in the May-
flower.

Mr. Merwin
And his assistants
May know about fish,
And then, they may not,
But they do know all
About the plant
Of which he is Superintendent.

Meet in the lobby
Near the West Park St. entrance,
And be there at eight, sharp,
On Friday, March sixteenth.

OFFICERS

H. L. Vorse, President
 J. C. Stevens, 1st Vice President
 Philip H. Dater, 2nd Vice President
 J. P. Newell, 3rd Vice President
 Henry M. Morse, Treasurer
 Orrin E. Stanley, Secretary

DIRECTORS

A. E. McKennett	J. R. Thompson
Wm. S. Turner	F. A. Naramore
John R. Penland	Douglas W. Taylor
John W. Cunningham	L. F. Harza
O. Laurgaard	

CHAIRMAN OF STANDING COMMITTEES

Harold A. Rands, Nominating
 S. B. Phillips, Membership
 Albert J. Witchell, By-Laws
 Elmer C. Strayer, Library
 Chester G. Hogue, Program
 J. W. Cunningham, Public Relations
 Percy A. Cupper, Legislative
 Robt. E. Cushman, Publicity

YELLOWSTONE PARK PICTURES

Major Fries of the U. S. Engineer Corps has consented to show to the Oregon Society of Engineers and its guests a series of stereopticon pictures of the Yellowstone National Park.

About a hundred of these pictures are colored, and all are interesting and instructive.

This illustrated lecture will be held in Room A of the Central Library Building, Thursday evening, March 22, at Eight o'clock.

Remember the date, as no further notice of this meeting will be sent to you, and you will not wish to miss it.

As you find it impossible to go to the Park this summer, it is particularly fortunate that Maj. Fries has brought it to you at this time.

Room A, Central Library Building, Thursday, March 22, at 8:00 p. m.

THEY LIKE THE JOURNAL.

Lefax, the "turn-over magazine," writes "We were very favorably impressed with the Journal of the Oregon Society, and would appreciate permission to use some of the articles for our data sheets and magazine."

It is some help to the Publication Committee to know that its efforts are well thought of abroad as well as at home, but from "inside informa-

tion" I am telling you that the April number will be a surprise to you all. You would scarcely believe that the Society had such editorial and technical talent as will be displayed upon its pages.

Watch for it. And when it comes, read it.

Mr. Vorse has some surprises up his voluminous sleeve at the nature of which I am not at this time even allowed to hint. It is enough to know that he says they will be for the betterment of the Journal, and as he has the interests of that publication at heart more than any other member of the committee, we must trust to his judgment in the matter.

In imagination I can even now hear the clanking of the presses, working overtime during the full interval between publication dates, in order to supply the demand for the new periodical which has come out of the west.

I must stop right here, or I will be telling something that has not yet been released for publication.

Wait for it.

McGRAW AND HILL PUBLISHING COMPANIES CONSOLIDATE

The McGraw Publishing Company, Inc., and the Hill Publishing Company, New York, have been consolidated as the McGraw-Hill Publishing Company Inc. The new company acquires all the properties and interests of the two constituents, including the following technical journals:

Electrical World, Electrical Railway Journal, Electrical Merchandising, Engineering Record, Metallurgical and Chemical Engineering, The Contractor, American Machinist, Power, Engineering News, Engineering and Mining Journal, and Coal Age.

Two of these papers, Engineering News and Engineering Record will be consolidated under the name, Engineering News-Record, with Mr. Chas. Whiting Baker, now editor of Engineering News, as editor-in-chief.

Mr. James H. McGraw will be president of the new company, Mr. Arthur J. Baldwin (now president of the Hill Publishing Company) vice president and treasurer and Mr. E. J. Mehren, vice president and general manager.

LOCAL CHAPTERS FOR THE OREGON SOCIETY.

The Oregon Society of Engineers has in the past been too much a Portland institution. While its membership has been widely distributed over Oregon and even beyond the limits of Oregon, the outside members have been few in numbers. It has never been deemed practical to hold meetings outside of Portland, and for these Portland gatherings, only occasionally were our Corvallis, our Salem, or our Albany members able to be present. The Society is deserving of censure for allowing these conditions to exist, and for having been of so little real service in the past to our statewide membership.

It has remained for Astoria, the oldest town in Oregon and the liveliest, the home of the salmon and the mayor who throws the bull without a rope, to wake us up to our backwardness. The engineers of Astoria have formed an organization which, while not large in numbers, lacks nothing in enthusiasm. This Astoria organization has asked the Oregon Society what they had to offer in the way of co-operation and assistance. They have suggested that rather than enter the fight alone, they would like to affiliate with us, and meet and act as a local chapter of our Society.

The idea is such a good one, so practical and obvious, that it is hard to see why it has not been appreciated and pushed in the past. Our constitution and by-laws make no provision for branch or local meetings of the Society. They should be revised at once. Provision should be made for any group of members who can get together, forming local branch societies. These societies can arrange their programs as they see fit, and can have their minutes and papers published in the "Bulletin" and the "Journal." These individual branches will gain strength through their affiliation with a variety of duties, including the dedication with the Oregon Society, and at the same time the State organization will widen its influence to an extent never before reached.

After we have provided constitutional means for formation of local branches, it is up to the Membership Committee to push the idea to its logical conclusion in extending the work to all parts of the State. Corvallis should be able to form a strong branch at once. Salem and Eugene should do likewise. Medford, The Dalles, Bend, Pendleton and La Grande, all have from six to fifteen residents who are identified with engineering work in a way which makes them eligible for one of our several grades of membership. With branch societies meeting in each of these cities, together with the pioneer branch at Astoria, the Oregon Society of Engineers will have an influence which will make it a real factor in the affairs of the State.

Incidentally, how would it be to have an annual Convention or "Round Up" of the members of the Society, in Portland or elsewhere? In the past our only official function of the year has been the Annual Meeting and dinner. A few of our up-state members have usually spent several dollars for railroad fare and hotel bill, and have been with us for a couple of hours at this annual dinner. We have appreciated their presence, and hope we have made them feel that they received their money's worth in being with us for this short time. If, however, instead of simply a dinner and a few speeches, we had a convention, lasting, say, a couple of days, with worth-while papers, excursions to the shipyards or other points of interest, and winding up with a dinner and perhaps a theatre party or a dance for the ladies; would it not be an improvement? With such a program, our members from Baker, from Burns, and from Lakeview, would feel justified in meeting with us.

Let our By-Laws Committee fix up our Constitution so that we may receive the Astoria branch society and others like it. Then, with our Membership Committee campaigning for outside members, and our Program and Publication Committees co-operating, we may become a real statewide Oregon Society of Engineers.

SOME LEGISLATION OF INTEREST TO ENGINEERS.

By John W. Cunningham.

The 1917 session of the Oregon Legislature is now over, and the (theoretical) representatives of the people have gone home to think up something to put over two years hence. The Legislators are something like the little girl who "when she was good, was very, very good, and when she was bad, she was horrid." The 1917 session passed both good and bad laws, and killed those of the same categories. With the same facility it put through the bone-dry law, which none of us oppose who had the foresight to stock up, and the bitulithic bonding bill, which appropriates six million dollars for the paving companies. The aim of this write-up will be to tell of some of the legislation having particular bearing on engineers, both that which passed and that which failed to pass.

The Architects, after asking the Oregon Society for support for their license law, broke faith with us when they altered the original draft of the bill. The Architects' License Bill, which was introduced as Senate Bill No. 88, specifically prohibited engineers from designing buildings. It provided that "a civil, mechanical, or structural engineer shall not be regarded as an architect, unless he plans or designs the erection of buildings, in which case he shall be subject to all the provisions of this Act, and be regarded as an architect." Before such engineer could design a building, he must have been "graduate of a recognized architectural school or college," and "have had at least two years' practical office experience," with some architectural firm. He would also have to pass an examination having "special reference to the esthetic qualities of buildings and the history of architecture."

After their attempt to bamboozle the engineers in this bill, we shall be obliged to look on any further legislative attempts of the architects with a good deal of suspicion. We might do well to have introduced in the next Legislature a bill requiring that a man must pass an examination on

strength of materials before attempting to design any building. It is a notorious fact that fully half of the so-called architects of the state could not figure the stresses in a simple beam, and for the structural features of their buildings are dependent upon tables in handbooks, and upon the free assistance rendered by material men. A measure requiring an examination on strength of materials would be justified on the ground of public safety, for it is certainly much more important that our buildings be safe than that they be long on "esthetic" qualities.

A meritorious measure, which however failed to pass, was House Bill No. 355. This bill aimed to change the title of "County Surveyor" to "County Engineer," and by imposing certain qualifications, to raise the standard of our county engineering work. This bill not only made it necessary for the county engineer to have had a certain amount of training and experience, but also required that he keep in his office an adequate system of records of work done. If passed, this act would to a large extent have relieved the engineers from the domination and persecution by the county courts, to which the present county surveyors are subject. We should endeavor to have a similar bill go before the Legislature two years hence, and along with clauses establishing a minimum salary to be paid in the different classes of counties, which salary should be adequate to attract a good grade of engineers to the county service.

In the line of road laws, the Legislature passed a plenty, and it will take us some time to straighten out the mass, and see where we really stand. The Legislature, aided and abetted by our Engineering representative, refused to consider the State Engineer as one of the Highway Commission, and paved the way for the Governor to appoint a commission of loggers and lawyers. The Legislature did provide for the appointment of a State Highway Engineer, but left things in such shape that he will be simply a figure-head, and the State Highway Commission may dabble in

engineering features and interfere with his work.

The original form in which the six-million dollar bonding bill was drawn up by the paving trust, was Senate Bill No. 312, introduced by Senator Olsen. This provided that in place of the State Highway Engineer, we should have a State "Roadmaster," who might appoint "such engineers, clerks and assistants" and other small fry, as might be deemed necessary. This State "Roadmaster" would have termination "of the methods of road construction best adapted to the various counties, giving due regard to the topography, natural character, and availability of road-building materials." Under this law, we should no doubt have gotten a Logger "Roadmaster," who would not have known what was meant by the word "topography," but could have told us what kind of pavement we should lay. The attempt to put in a State "Roadmaster" in a place which should be held by an engineer, must be taken as a direct insult to the engineering profession.

The new law relating to county organization provides for county roadmasters who have the same status as under the present law. They may be either "competent engineers or practical road-builders." What a difference it would have made if the little word "or" could have been changed to "and"!

The writer had an opportunity a few months ago to call attention in the "Bulletin" to the road code being prepared by the U. S. Office of Public Roads in Washington. This Code arrived a little bit late, but in time to be introduced in the Legislature as Senate Bill No. 288. This code came up to all expectations and was the only dead straight-forward and constructive road measure which came before the 1917 session. In the maze of politics and trading which was going on, it received scant attention and never saw daylight from the committee.

This Code provided for a commission of three, one of whom should be the State Engineer. It provided for a State Highway Engineer, who would be the executive head of our state

road work, and would be more than a rubber stamp for the Highway Commission. It provided for county road engineers, who should have similar authority over the county roads of the state, and likewise would have a specific authority which would keep them from being ridden by the county commissioners. Taken as a whole, this bill justified the prediction which was made that it would have established engineers in their true position as leaders, rather than flunkies, for the cause of good roads.

We should look forward to the passing of a complete road code for the State of Oregon, similar to that suggested by the Federal authorities. Whether such code be passed by the use of the initiative, or as an act of the Legislature, is immaterial, although it is probable that an initiated bill would stand a better chance in not having to run the gauntlet of peanut politicians in our legislative halls at Salem.

(Editor's Note.—Mr. Cunningham has informed us that he has a number of extra copies of Senate Bill No. Code. He would be glad to turn these over to any of the members of the Society who are interested in the subject.)

THE WOMEN READ 'EM.

We are not putting up either the Journal of the Oregon Society of Engineers or the Bulletin as being in the same class with the Ladies' Home Journal and other magazines calculated especially to appeal to the feminine mind, but we have been warned that the women do read both of our publications.

Well, Well, we didn't need the warning, for we do not think that anything has yet crept into either publication which would bring a blush to the cheek of the most modest maiden, even if she were reading it aloud to her mamma. And this is as it should be, isn't it?

We welcome the ladies as readers, and as contributors too, if they have something to say that we think will interest the engineers and their families.

MORE METRIC MEASUREMENTS

Circular No. 47 of the Bureau of Standards, Washington, D. C., giving units of weight and measure, with definitions and tables of equivalents, has been received.

This circular (which, by the way, is rectangular) is seventeen and a half by twenty-five centimeters and contains sixty-eight pages.

Following several pages of definitions of the various weights and measures in use, including the Metric System, is a table containing the names of the most common units and the approved abbreviation for each.

Then comes a series of "tables of interrelation of units of measurements" from which we glean the information that a centimeter is 0.001,988,384 rod, while an inch is 0.005,505,51 rod, which, you see, can be expressed in one less decimal place than the value of a centimeter. But the rod, as a unit of measurement, is going out of style, and some of us hope to live to see the time when the foot and the pound will have followed it into oblivion. For isn't it easier to say that a square meter is 0.0001 hectare than that a square foot is 0.000,022,856,8 acre?

Much objection is raised against the Metric System on account of the difficulties to be experienced in passing through the period of transition from the old to the new, but this Circular No. 47, which can be had for 15c, smooths the way very nicely. It contains conversion tables of fractions of an inch to millimeters and decimals of an inch, comparisons of the various tons and pounds in use in the United States (from 1 to 9 units), and 35 pages of tables of equivalents from 1 to 999 units, which make accurate reductions from one system to the other comparatively easy, while the more ordinary equivalents are readily memorized, and serve well for everyday use.

What percent of the people who now think that they can not learn a new system because they have become so thoroughly soaked with the one to which they were born, can, without a measure, mark off a space a yard long? Will it not in half the

cases be more nearly equal to a meter than a yard.

How closely can you guess to a pound in weight? Would you not be able to guess a half kilo as nearly?

And as to our well-beloved inch, who is there who can tell without measuring whether a certain distance be an inch or 25 millimeters?

Think these things over a while, and then send to the Department of Commerce, Washington, D. C., for a copy of Circular No. 47, Bureau of Standards.

VALUATION ENGINEERS WANTED

The following letter from Mr. R. D. Perkins, Valuation Engineer of the Los Angeles & Salt Lake Railroad Company, Los Angeles, Cal., to a member of our Society may be of interest to others of the members.

"We are in need of some engineers who are familiar with Railroad Accounting to the extent that they could assist us in the preparation of 'Cost Data' in connection with Federal Valuation. The work is temporary, that is, it will likely be of a few months' duration."

The Secretary has one form for application for one of the above positions. Others can be had from the company.

THE FEBRUARY 27th MEETING

The largest audience yet assembled by the Oregon Society of Engineers greeted Mr. O. M. Ash in Library Hall on the evening of February 27th to listen to his lecture on the manufacture of steel pipe.

Motion pictures showing all the processes, from stripping the earth from the open-cut iron mines in Northern Minnesota, to the attack of the rust devils upon the finished product were shown.

These were followed by other pictures of the workmen in the various plants engaged in the manufacture of "National" pipe, with their families in the recreation parks which have been furnished largely by the companies.

The pictures and the lecture were greatly enjoyed by each of the more than two hundred people present.

CONCERNING KNOCKERS AND OTHERS.

We have it from no less an authority than Dr. E. H. Lindley that there is, in Indiana, an architect who has the proper professional spirit.

This architect, so Dr. Lindley informs us, did his darndest to land the job of designing an important state building, and failed. Upon being informed of the decision of the Board which had the authority to award the work, did he "knock" his successful competitor? Did he tell the Board that a twelve-year-old boy could design a better building than the man they had selected? Did he get into the Oregonian—maybe they don't have an Oregonian in Indiana, but never mind—with the statement that he (the unsuccessful chap) could have saved the state a hundred thousand dollars and have built them a better and more pleasing structure?

He did not.

He said to the Board "You have secured the best architect in Indiana."

And everybody thinks more of him for this statement. And sometime when someone doesn't need the "best architect in Indiana" or when the "best architect" is too busy to accept a commission, the man-who-didn't-knock will be the next man considered, will he not?

He will be thought of as honest and fair-minded, and in every way an agreeable man with whom to transact business.

You see what I am driving at, do you not?

WARRENTON CLAY COMPANY OPENING

The official opening of the Warrenton Clay Company's plant is set for Saturday, April 7.

The plant is equipped for the manufacture of sewer pipe, drain tile and hollow building tile, and the officers of the company hope to have at least two hundred engineers and buyers of the goods which they make, as guests of the company at a banquet in the evening, after an inspection trip around the plant.

It is hoped that the Governor will be among the guests.

Invitations will doubtless be sent to those who may be interested in the products of the company.

ENGINEERING COOPERATION

The third annual conference of the Committee on Cooperation will be held in Chicago on Thursday, March 29, 1917.

This committee is endeavoring to help the engineering profession of the country by cooperating with the national and local engineering societies in the matters of welfare of the members, ethics, employment, publicity, civic affairs conferences, etc., and will, no doubt, accomplish much good whether we help or not. But it can do more good and do it much more quickly, if our Society and all the other organizations of the same class give such help as they can.

One line of work proposed by the Committee which would be of direct and immediate benefit to all, is the distribution to the officers of various societies, information concerning work which technical organizations have done, and are doing. An occasional hint as to the manner in which results are being accomplished elsewhere, should save for us much time and money which would otherwise be spent in experimental work.

The Oregon Society of Engineers should have a representative at the conference of this Committee.

Who is going to be in Chicago on March 29th?

LEFAX AGAIN.

One by one they come, clamoring for admission to the pages of the Bulletin. And being partly human, the clink of the coin received from the advertisers has some influence upon us.

This is more especially true when the advertisers have something to sell which we know to be valuable to our readers.

The Lefax publications offered for sale by Mr. Chas. G. Nash, in the last issue of the Bulletin, belong in this class, and having a man in our midst who carries a supply of these goods makes it very convenient for most of

us, for Philadelphia is a long way off.

If you don't know what Lefax has that will interest you, call up Mr. Nash and let him explain the system to you.

His phone is Tabor 7174.

PATRIOTISM.

Our fair land is just now full of "red blooded Americans" who seem to think that the word "Patriot" is derived from "Pat" and "riot," and can therefore be best represented by an Irish melee.

Webster says that a patriot is "One who loves his country and zealously supports its authority and interests."

According to the standards of intelligence up to and including the present, this zealous supporting of the authority of one's country has called for more or less display of militarism, but fighting with a rifle, or other deadly weapon is not the only manner in which one may display his patriotism. And I might also remark that it is not necessary to put up a bold bluff that one can, single-handed, "lick" the entire invading army, in order to show that one is moved by patriotic impulses.

Is not the man who zealously supports his country's interests in times of peace, and in the face of adverse criticism, as thoroughly a patriot as he, who under the excitement of the moment, shoulders a rifle, and marches forth amid the tooting of whistles, the smiles, the tears, the kisses, and the blessings of loved ones, to kill or maim another man who under similar conditions is leaving similar surroundings for a similar purpose?

Does either man harbor ill feelings towards the other as a man?

No.

And more than that, each is secretly hoping, deep down within him (at about the elevation of his trembling knees) that he will never see the other.

Neither knows what he is fighting for, nor what he hopes to accomplish. But each is a patriot. Each loves his country, and is eager to support its authority. Its interests, he forgets for the time being, or assumes that they are identical with authority.

Too many of us fail to look beyond the ends of our noses.

If we stub our toe, our first impulse is to kick the offending obstacle. But as we get more experience, we find that the second kick hurts worse than the first, and the obstacle is still unmoved. So we have learned to stoop and lift it from the path—or to report it to the Board of Public Works.

But in matters of national scope we still have the primal instinct to kick the offender out of the way.

Did you ever knock a hornets' nest out of a bush with your cane to save the necessity of stooping under it?

Did you ever try it a second time?

Would not we, as engineers, be using our time and energy to far better advantage in evolving constructive policies for the upbuilding of the nation and the world, than in the invention and manufacture of deadly weapons, and in learning to use them?

Is it not possible that some patriotic engineer may some day devise means for settling international misunderstandings by other means than by giving way to instincts older than the human race?

And may we not hope to see that time when international wars will have become as unpopular as Kentucky feuds, or as the duels by which our forefathers upheld their "personal honor"?



The Phil Easterday Reinforced Concrete Pipe

"THE OLDER IT GETS THE STRONGER
IT GETS"

"Permanent as the Pyramids"

1108 Board of Trade

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BULLETIN

No. 17

PORTLAND, OREGON

April, 1917

MEETING THURSDAY, APRIL 5

Mr. J. W. Swaren, Hydro-electric Engineer with the Pelton Water Wheel Co., will give an informal talk on "Some interesting and unique bits of engineering construction" which have come to his notice in the course of his practice.

His remarks will be illustrated by means of fifty or sixty lantern slides gathered in all parts of the world showing original solutions of engineering problems, unexpected results, and odds and ends of minor engineering practice.

This meeting should be of interest to all members of the Society, regardless of the particular branch of the profession in which they specialize, and there will also be much that will be of interest to the general public.

The lecture will be in **Room A of the Central Library at 8:00 o'clock Thursday evening, April 5, 1917.**

You will be glad you came.

Open to the public.

Admission free.

THE MARCH MEETING

Our Society was particularly fortunate in the matter of meetings during March.

On the evening of March 16 we assembled in the vicinity of the "War College" on West Park Street, and were escorted to the "Cook by Wire" store of the Northwestern Electric Co., where Mr. L. T. Merwin told of the work of the Company of which he is Superintendent. He told of the manner in which service was furnished to the patrons during the sleet storms by means of the steam auxiliary station in the basement of the Pittock block.

And all this time the electric cook-stoves in the front of the room were in operation.

Some of us paid attention to Mr. Merwin's talk, and others watched the cook cooking by wire.

Mr. Merwin divided the crowd into groups of about ten men and detailed an employe of the Northwestern Co. as guide for each group, and in this manner we visited the basement of the building, more than fifty feet below the grade of the sidewalks, and watched the wheels go round, and asked questions of the guides for a half hour or more. We then returned to the store, and the commercial department of the Company furnished us with a chicken pie supper, the members of the party taking turns at asking questions of Mr. Merwin so that he didn't get a chance at the supper until all the others had satisfied their appetites.

The next time the Northwestern Electric Co. asks the Society to meet with it, a larger room than the "Cook by Wire" store will be needed to hold the crowd.

On the evening of March 22, we had another meeting at which there were insufficient seats for the crowd, and this was in Room A at the Central Library, too.

Whether it was rumored that refreshments would be served, or not, I have been unable to determine, but the crowd was there, and no one went away feeling that his time had not been well spent.

Maj. A. A. Fries, of the U. S. Engineer Corps, who is in charge of the road construction of the Yellowstone National Park, showed about a hundred beautiful stereopticon views, and explained each one.

Some of the views are of things which the tourist of the present day would not be able to see, as they have disappeared, while many of the others can be seen only at certain times of the year, and one would have to spend at least twelve months in the Park to see everything which Maj. Fries had brought to Portland for us.

Besides, the car fare to the Library is less than to the Park.

We are genuinely sorry for all who stayed away from these meetings, and hope that they will take the hint.

Chairman Hogue of the Program Committee is on the job, and you are the loser if you do not take advantage of what he has to offer.

And finally, brethren, as has been remarked before, "A bug in the ear is sufficient."

AN APOLOGY

I don't know that I am any more or any less superstitious than the average adult male of this commonwealth, but something leads me to believe that if I had "knocked wood" when

I wrote the last Bulletin, this need not have followed.

The case is this: I rather patted myself on the back because the women read the Bulletin and found nothing particularly wrong, and in that very same issue appeared an article which penetrated the thin skin of a fellow member of the technical professions.

I am sorry that it happened.

And on the other hand, it shows that the Bulletin is read outside of the membership of the Society, even if it is not appreciated, and that indicates that we are making progress.

Are not congratulations in order?

APPLICATIONS FOR MEMBERSHIP

Your attention is called to the following applications for admission to the Oregon Society of Engineers.

These applications are now in the hands of the membership committee for investigation, and if no objections to the characters of the applicants are found before the next meeting of the Executive Board following the publication of this list, the Board will cast the ballot of the Society for the applicants.

Look them over, and if you know any reasons why any applicant will not make an acceptable member of our Society, it is your duty to the Society as well as to the profession to so inform the Executive Board at once.

AS ACTIVE MEMBERS

BECKWITH, DANIEL, 426 City Hall, Portland, Ore. (Age 28, Born Saundersville, Rhode Island.) (Providence Technical High School.) Apr. 1907-June 1908 chairman and rodman on construction S. P. & S. Ry., June, 1908-June, 1909, rodman and topographer on location N. P. Ry. Nov., 1909-May, 1910, tunnel inspector and transitman construction N.

P. Ry. May, 1910-Oct. 1911, Draftsman, Computer and Instrumentman on construction O. T. Ry. Dec. 1911-May 1913, office asst. to Dist. Engr. on construction O. E. Ry. May, 1913-Dec. 1913, Instrumentman and Res. Engr. on construction C. & N. R. Ry. Dec., 1913-Jan., 1915, Draftsman, office Engineer, and Chief Draftsman on location and construction with Oregon State Highway Commission. March 1915-April, 1916, Engr. Dept. Portland Gas & Coke Co. April 1916-Sept. 1916, Chief Draftsman, Ochoco Irrigation District. Sept. 1916 to date, Senior Draftsman, Dept' of Public Works City of Portland, Ore. Endorsed by John W. Cunningham and Orrin E. Stanley.

DULIN, R. S., 997 Cleveland Ave., Portland, Ore. (Age 45, Born Liberty, Missouri.) (Missouri School of Mines, 1893-1895.) 1895-1902 Chemist and Asst. Supt. Anaconda Copper Mining Co., Anaconda, Mont. 1902-04 Montana Ore Purchasing Co., Chemist. 1904-10, other like positions in California and Mexico. Chemist Engineering and Public Works Department City of Portland 1910 to date. Endorsed by Orrin E. Stanley and J. W. Cunningham.

DUNN, C. A., Box 97, Tillamook, Ore. (Age 28, born Cloverdale, Ore.) (Graduate of Engineering Dept. of Oregon Agricultural College, June 1911, with B. S. degree.) 1911-14 with Warren Const. Co. on construction of Street and Highway Paving, capacity of foreman. 1914-15 with Alaska Treadwell Gold Mining Co. The latter part of this period as refinery foreman. 1915 to date Deputy County Surveyor of Tillamook Co. Served a part of this time as Roadmaster. While with Tillamook Co. much of my time has been devoted to design of highway bridges and paving operations. Endorsed by John W. Cunningham and Orrin E. Stanley.

GIBSON, RALPH A., 1220 Spalding Bl., Portland, Oregon. (Age 29½, born Chicago, Ill.) (Lewis Institute, Chicago Ill. in Mechanical Engineering 1907-08.) 1906 Machine Hand and Draftsman with Wm. R. Perrin & Co. (Press Manufacturers) Chicago, Ill. 1909 Draftsman with Chicago Railways Co., Chicago, Ill. 1909 Draftsman with Excelsior Motor & Mfg. Co., Chicago, Ill. 1910 Draftsman with Burdett Rowntree Mfg. Co., Chicago, Ill. 1910 Computer with City of Portland, Or., Portland, Ore. 1911 Draftsman with Port-

land Ry. Lt. & P. Co. 1911-13 Draftsman with Pacific Power & Light Co., Portland, Ore. 1913 Appraisal Assistant with Wm. J. Hagenah, Portland, Ore. 1913-14 Draftsman with Northwestern Electric Co., Portland, Ore. 1914 Appraisal Assistant with Pacific Power & Light Co., Portland, Ore. 1915 Draftsman with Northwestern Electric Co., Portland, Ore. 1915-16 Draftsman with Shell Co., Portland, Ore. 1916 (2 mos.) Draftsman with Hesse-Martin Iron Works, Portland, Ore. 1916 (1 mo.) Supt. with private work (design and construction of special machine), Portland, Ore. 1916 Draftsman with Northwestern Elec. Co., Portland, Ore. 1916 to date Draftsman with Pacific Pwr. & Lt. Co., Portland Ore.

The above employment includes experience in design and drawings for machinery, timber structures, reinforced concrete structures, piping layouts, and minor electrical layouts; also appraisal statistics, cost analysis and cost estimates. Endorsed by L. T. Merwin and F. O. Broili.

JOHNSON, ALBERT G., 890 E. Salmon St., or Room 423 City Hall, Portland, Ore. (Age 31, born Worcester, Mass.) (Harvard A. B., 1908, Student in the Harvard University Law School Sept. 1910-June 1911.) 1908-09 Computer in the City Engineer's office, Portland, Ore. Mar. 1910-June 1911, Transltman in City Engineer's office, Portland, Ore. Aug. 1911-Dec. 1913, Computer in the City Engineer's office, Portland, Ore. Dec. 1913 to dae, Statistical Clerk and Assessment Deputy in Department of Public Works, Portland, Ore. Endorsed by Orrin E. Stanley and J. W. Cunningham.

KELLEY, CHARLES C., 10 West Park St., Portland, Ore. (Age 34, born St. Elmo, Ill.) (Graduated Valparaiso University Valparaiso, Indiana, 1904-06. Special Engineering Course at University of Illinois, Urbana, Illinois, 1906-07.) 1899-1900 Rodman location and construction. St.

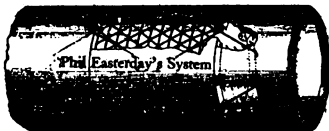
Louis, Red River & Dennison Ry. (Frisco) from Sapulpa, Ind. Ter. to Dennison, Tex. 1900-01 Levelman and Transitman C. O. & G. Ry. Extension Weatherford, Okla. to Amarillo, Tex. 1901-04 Active Partner in firm of Kelley Bros., sub-contractors on the following railroad construction: 1901 extension of Frisco System Sherman, Tex. to Carleton Junc. Tex.; 1902 extension of Frisco system Chickasha, Okla. to Lawton, Okla.; 1902 extension of C. R. I. & P. Ry. Lawton, Okla. to Anadacko, Okla.; 1903 extension of Frisco System Red Fork, I. T. to Enid, Okla.; 1903 White River extension Mo. Pac. at Yellville, Ark.; 1904 extension of M. J. & K. C. Ry. from New Albany, Miss., south. 1907-12 Resident and Assistant Engineer for Southern Pacific Ry. (S. P. de M.) in Mexico. 1912-14 Res. Engr. and Supt. Const. O. E. Ry. Eugene extension. 1914-16 Loc. Engr. & District Engr. Oregon State Highway Comm. 1916-date, Civil Engineer, private practice Portland, Ore.

KIRKWOOD, A. A., Forest Grove, Ore. (Age 32, born Hillsboro, Ore.) (Completed Junior year at Pacific University 1908, finished Civil Engineering course at University of Montana 1910.) 1910 Transitman for United Railways Co. 1911-12 Deputy Co. Surveyor for Washington Co. 1912-1917 City Engineer of Forest Grove, Ore. During the past six years has designed or assisted in the design of water supplies for several small towns in Willamette Valley. Also had entire charge of approximately \$350,000 of improvement in Forest Grove. Endorsed by John W. Cunningham and Orrin E. Stanley.

AS JUNIOR MEMBERS.

ANDERSON, WILLIAM, 328 N. 10th St., Corvallis, Ore. (Age 28, born Christiania, Norway.) (3 years as apprentice in structural shop, in Norway. Will graduate in June 1917, O. A. C.) 1908-11 fireman Steamer Hercules of Portland. 1911-13, approximately 18 months as machinist helper, Willamette Iron Works, Portland, Ore. 1916, 3 months as Control Tester, Corvallis, Ore. Endorsed by S. H. Graf and R. H. Dearborn.

VINCENT, GEORGE SYLVESTER, Sherwood, Ore., R. F. D. 1. (Age 21, born Pleasant Home, Ore.) (Oregon Agricultural College, B. S. degree 191.) Sept. 24 to Oct. 25, 1916, Flagman, O.-W. R. & N. location party, Pine Creek, Ida. Endorsed by N. C. Pearson and S. H. Graf.



"Permanent as the Pyramids"

**The Phil Easterday
Reinforced Concrete Pipe**
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IT GETS"

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Engineering

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MAY 21 1917



BULLETIN

No. 18

PORTLAND, OREGON

May, 1917

OREGON SOCIETY MEETING

MAY 18th Second Floor OREGON BLDG.

SUBJECT: The proposed Three Million Dollar Bond Issue for Grain Elevators and Freight Terminals, by G. B. Hegardt, Secretary and Engineer of Portland Commission of Public Docks.

The talk will be illustrated by lantern slides showing development of Columbia River bar from the time the first work was done in deepening the channel, to the present, and comparing our own bar, channel and harbor conditions with the principal ports of the world.

Mr. L. B. Smith, Chairman of the Young Business Men's Committee, will introduce the speaker.

FOR MEMBERS ONLY

With this issue of the Bulletin there is being sent a blank to be signed by members and returned to the Treasurer, Box 973, Portland, Ore.

The filing of these subscriptions to the Journal is required by the P. O. Department before the Journal shall be admitted to the mail as second class matter.

It does not make the Journal cost you any more, and you cannot save the 50c by failing to return the blank, properly filled out, to the Treasurer.

Please sign and mail the form before reading the rest of the Bulletin.

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THE VITAL PROBLEM, WHO WILL SOLVE IT?

By Henry Blood.

The great war in which the United States has finally been compelled to take part is more a struggle of brains, science and engineering than any previous war. There are many pressing problems to be solved if victory is to be finally achieved, but it seems to the writer that the most vital one to the Allies at the present time is the submarine question. In spite of optimistic statements to the contrary, there is little doubt that the food supply of the Allies and handling of troops is gravely menaced. The danger grows daily as Germany continues to launch and send out new submarines. The number that are sunk or trapped must be comparatively small. If the submarine should win, it is not pleasant to think what the effect on human liberty and civilization will be. Here is a chance for the highest type of inventive ability.

There are no doubt some good thinkers and inventors among the readers of the Bulletin. Why not spend your spare time on this serious problem? It may be true that experienced naval experts and scientists are working on it and you should be a good sport and not feel ruffled if no attention is paid to plans that you may suggest. Yet

the more minds there are in the attack, the more probability of reaching a successful solution. Some Portland man may be able to perform this service for his country.

If you have a well considered and sufficiently clear idea, send it to the Navy Department or Naval Consulting Board and do not be discouraged if it is not used. Every patriot must do his or her share in this conflict, in many cases without any compensation except the knowledge that you have tried to help.

THE AMERICAN METRIC ASSOCIATION

By A. E. Kennelly.

The purpose of the American Metric Association is to hasten the advent of the international system of weights and measures in America.

No well-informed person can doubt that sooner or later the metric system will be the system, and the only system, of weights and measures in use for all purposes in the United States. This is because so many countries have already relinquished their own aboriginal systems of weights and measures in favor of the metric system; and also because the metric system is already used to a very considerable extent in America already, and is actually the only system that has ever been legalized in America, besides being in existing general use in certain American territories. When a simple rational and scientific system works alongside of a complex, irrational and incongruous system, it is only a question of time when the simple system will displace the complex system.

The world is too small a globe to permit of maintaining indefinitely a plurality of systems of measure. If there were no commerce, no traveling, no mail, no telegraph, no radio communication, it might be possible to keep a plurality of systems in force; but with all these disseminating and interconnecting agencies at work, the perpetuation of more than one international system becomes unthinkable. France, Germany, Austria, Italy, Belgium, Holland, Spain, Portugal, Norway, Sweden, Denmark, Greece and

various other smaller European states have already adopted it. All of the South American republics have it. If one speaks of a hectoliter of salt, every intelligent person in all those countries knows exactly what is meant and there can be no ambiguity about it. If one speaks of a bushel of salt, not one in any of those countries is likely to know what is meant. We do not even know, as a rule, in America what is meant. "The World Almanac" of New York, for 1917 gives on page 78 a list of the minimum legal weights of a bushel of thirty-five different articles in the United States, and adds that "salt weight per bushel as adopted by different states ranges from 50 to 80 lbs."

In America, substantially all of the scientific work of the country is done in the metric system already. In matters of engineering, much good work is done and recorded in the non-metric or customary system, with the result that American engineering does not receive its proper estimate in foreign countries, where the engineers rarely attempt to understand our uncouth units. Electrical engineering is, however, an exception, because all the international electrical units, such as the ohm, volt, ampere and watt, are metric. For this reason, electrical engineers understand each other's electrical measurements all over the world. The very rapid development of national and international electrical engineering in recent years may, in part, be attributed to this freedom of intellectual exchange, all over the world, of metric electrical measures. For all other and customary units, we are cut off from a like degree of international comprehension, and the English speaking countries are intellectually beleaguered by the rest of the world, in matters not pertaining to electricity.

The electrical engineers have already introduced metric measures into general use throughout the country. Thus, all of the monthly bills rendered to consumers of electric light and power are made out on the basis of the Kilowatt-hour, an international and metric unit. All wave lengths in American radio telegraphy are stated and

specified in meters. There is no trouble with either of these units.

Every American citizen with a 5-cent "nickel" in his pocket, has therein a 5-gram weight. That is to say, a nickel fresh from the mint, weighs, by law, 5 grams. Moreover, subsidiary silver coin,—half dollars and quarters, are issued on the basis of 25 grams to the dollar; so that a new half dollar weighs just 12.5 gm. No American, with subsidiary coin in his pocket, can say that he does not come into daily contact with the units of the metric system.

Very few Americans know all of their standard tables of weights and measures. Very few can tell what an acre of ground is, or the difference between a pound troy and a pound avoirdupois, or what is the difference between dry measure and liquid measure. Few educated Americans know that there is a difference of about 20 per cent between a pint in America and a pint in England or Canada.

There used to be, until very recently, nearly twenty recognized different weights for a "carat," in weighing diamonds and other jewels. Now, however, we have in America, and all over the civilized world, an international carat in the metric system. It is one-fifth of a gramme, or the twenty-fifth of one of our nickels. There used to be much ambiguity and trouble with the carat or carats, in past days. Now, it is said there is no longer any trouble about the international metric carat, either here or elsewhere.

The change from the customary to the metric system will undoubtedly cost money and effort, just as every change made in business costs money and effort. The amount of the expense will naturally depend upon the way in which the change is made. Those who are opposed to the advent of the metric system are prone to exaggerate the cost. Some go so far as to opine that the change would entail the complete abandonment and replacement of all the existing machinery in the United States. In view of the history of the corresponding change made in other countries, this opinion is unwarrantable. If the change were made say next year, the

same machinery now in use, would go on making the same things as before. The only change would be in the literature, catalogs and price lists describing those things. A man buying an American clock after the change would not insist upon the lengths of the clock hands being an exact number of centimeters. He does not insist upon their being an exact number of inches today. If he measured the hands now, he would probably express their lengths in inches. If he did it after the change, he would probably express it in centimeters. In recent times, large quantities of shells and other ammunition have been ordered in Europe to metric scales, and have been constructed in America, in ordinary American machines, to fit that scale. In some American factories, work to metric measure goes on all the time, and has been going on for months and years.

The change when it comes, will give inconvenience and trouble in the alteration of habits, measurements, records, price lists, catalogs, etc. The expense involved will be to a large extent an expense of intellectual effort, of getting used to a new state of things. In the process of becoming familiar with the new measures, mistakes must be expected to be made at the outset, and the cost of such mistakes must be taken into the account. One cannot have omelette without breaking eggs. But the omelette is well worth breaking eggs for. The best way to make the change is to make it fairly gradual. The first thing to do is to spread knowledge of the metric system, and to understand it. This understanding is a matter of an hour for an intelligent person. The next thing is to use it in measures and in records, at first keeping records in both customary and metric measures. After a while, the old units can be discarded.

The American Metric Association stands for such procedure as shall introduce the change with the minimum expense and least interference with the wishes of conscientious objectors. We must remember that if the United States were to offer every citizen a gift of a gold watch, there would be sure to be conscientious objectors.

All who are interested should join the American Metric Association.

The address of the Association is 156 Fifth Ave., New York.

WORK FOR THE BOYS.

A letter from one of the O. A. C. boys of the class of 1917 asking what openings there are for young fellows calls to mind the fact that the "crop" of graduates for this year is about ready to put on the market.

And as this is a crop that is not much improved in quality or flavor by storage, it would be well for those in need of help, or who expect to increase their forces a little later, to make their wants known to the Secretary or the engineering faculty of one or more of the schools, and get some of these men before their enthusiasm has had time to chill.

Some of them have had sufficient experience to enable them to handle ordinary work without constant supervision, and of the others it may be said that the sooner they get this experience, the better will it be for the profession and for the men themselves.

So if you can make a place for one or more of these young engineers it is your duty to the profession to do so, even though you can handle your work with the present force by crowding all your men all the time.

Your country may need you at any time. Have you an understudy? Is your organization such that a man can be dropped out from any part of it without seriously interfering with the work?

Think these things over, and then:

Engage the entire '17 crop of engineers before some one gets ahead of you. There are some good men among them. Put in your order early and get the best.

Ask the Secretary.

BEFORE ELECTION

You cannot legislate honesty.

You cannot legislate economy.

You cannot legislate efficiency.

To get these things you must elect honest, economical and efficient men. And men who have shown these quali-

ties in the past will not be likely to change for the worse after election to a position of trust.

It is less difficult to get a few honest, economical and efficient men than it is to secure many of this type. Also, I would like to mention in passing, that it is naturally easier to find *one* man possessing these qualifications to a high degree than it is to find five. That is to say, that a City Manager form of government would, in my opinion, be preferable to even the Commission form. (This last thought may be saved for future use.)

The sun behind a cloud gives some light and some heat; on a clear day the light and heat are more intense; but if you focus the sun's rays by means of a strong lens, the bright spot caused by this concentration of individual rays begins to burn. You have gotten results that would have been impossible in years of plain bright sunlight.

The eyes of the people are the rays of the sun.

Hide them from the administrative end of the city government behind the cloud of a large council, and little effect is felt. Let these people look directly at the responsible department heads and the beneficial results of the closer contact is noticed. But when you focus the eyes of the entire city upon one man—the City Manager—so that each citizen knows that the Manager alone is responsible for the proper expenditure of the city's funds, and you have closely approached the ideal in municipal government.

TECHNICAL MEN CAN RENDER VALUABLE SERVICE IN THE VOCATIONAL GUIDANCE OF BOYS AND YOUNG MEN.

By Henry Blood.

Engineers have been urging each other for the past few years to take a more active part in public affairs. Many of them are eager to find channels for useful volunteer service. There are many such opportunities; the writer ventures to suggest one. In his opinion there is no finer chance for technical men and others to benefit the country and all humanity than

by acting as counsellors and vocational guides to the boys and young men of their acquaintance.

This requires some study and care; also some natural qualifications. Not every engineer is fitted for it, even if he could develop the necessary enthusiasm and patience. But many could do it excellently and others who will think in reading this that they have no ability would probably be surprised by what sufficient effort would enable them to accomplish. There are a number of books on the subject of vocational guidance in the Public Library. One of the best, perhaps, is "Vocational Guidance," by Dr. J. Adams Puffer of Boston. Dr. Puffer has had long experience in handling boys. He made several addresses before the Portland school teachers last winter. There are several copies of his book in the Library. It is not large and will be found interesting reading by most persons. Another good book on the subject is "Training the Boy," by Prof. William McKeever of Kansas State Agricultural College. By reading two or three such books, the engineer will get an outline of the work. Some psychology, a subject in which many engineers are already interested, will help him to an understanding of boy nature. Then he needs to become thoroughly acquainted with the opportunities and objectionable features of the various branches of industry, commerce, science and the arts. An engineer by his training and actual participation in industrial and business life should already have much of this knowledge and find it easy to obtain more.

At present the work of vocational guidance is left largely to teachers. They are in an unusually good position to understand the children and to win their confidence. But they often have no knowledge of many of the occupations, except that gained from reading and from meager contact. Parents are usually not as well qualified as teachers to point their children to the best suited trade or profession. There are some professional vocational guides, but they cannot reach directly a very large number of youths. Engineers who are liberally trained and broad minded enough to

justly rate the various occupations, should be able to give valuable counsel. They should neither belittle technical work nor think that the majority of boys are proper candidates for some branch of engineering.

We desire that the United States shall stand foremost among nations for efficiency, progress and intelligent citizenship. To this end every person should find the task for which he is naturally fitted, and be thoroughly trained for it. There should also be such a distribution of numbers among the different occupations that none will be overcrowded. It is worth while to aid in bringing about this condition.

If your interest is aroused put it into action; the average man needs a hobby to keep him fresh. Gain the friendship and confidence of a number of boys in your community; learn something about their home life, preferences in play, study and work; take them in small groups to see different kinds of construction work, manufacturing, business, agriculture, etc., and answer patiently the questions they ought to ask. Even though you may not finally decide what some of the boys like most or are best qualified for, you will have greatly increased their chances for making a wise choice. You may discover some natural leader or executive. You can also give little talks to students in the polytechnic, commercial and engineering schools. Other plans may suggest themselves and you can work at the pastime as hard or as easy as you like.

CONCERNING JOBS, POSITIONS, ETC.

The secretary has been very much humiliated in the last few days by his inability to tell prospective employers where they might find the men for whom they were looking.

He is quite confident that there are such men, and that they would be glad to learn of the openings that have come to his notice within the past two weeks. But the main difficulty comes in finding the man when the job is open, or the job when the man is ready.

It would seem as though the man who is not in the position for which he feels that he is best fitted should assume the responsibility of keeping the secretary informed as to his whereabouts so that when the job that he has been waiting five or ten years for looms up in the foreground, he can be notified in time to grab it quick.

But does he?

Oh, no.

He silently steals away on some little job, and carefully covers up his trail, or carelessly allows it to become obliterated. And when the JOB comes breezing into Society Headquarters, and the secretary grabs his box of addresses of good men and gets busy with the phone he finds that "The phone has been taken out," or "He has been out of town for two weeks. No, we do not know when he will be back"; or "He has gone to Philadelphia and will not return to the west."

There are some applications in the files that have been there for several years. The applicants are getting more pay where they are than has been available in any position that has come to the Secretary's notice in that time, but if he should need these men he knows where they are, and what they can do, and how much salary and what kind of a job will tempt them from their present positions.

Then, too, it is important that notices of change of address and change of employment should be made known to the Secretary in writing so that it may be made a matter of record, for he is finding it necessary to leave some of this work to an assistant who may not be personally familiar with all the incomings and outgoings of the various members of the Society.

Please register your qualifications and your estimate of their cash value.

And whether you want a job or not, please keep the Secretary informed as to your correct address. It will pay you to do so.

THE PACIFIC COAST MILITARY HIGHWAY

Down at North Bend on April 19 there was held an enthusiastic Good

Roads Convention at which our Past President Walter H. Graves introduced a set of resolutions setting forth the need of the highway in his usual clear and forceful style, and calling upon the representatives in congress to "Get busy, and get busy quick." The resolutions follow, and speak for themselves.

Resolutions adopted by the Good Roads Convention held at North Bend, Oregon, April 19, 1917:

Whereas, our country has been abruptly forced into the great world-wide war, as one of the belligerent nations, and we are now face to face with actual war and all its hazards, and in consequence of which the nation has been aroused to the startling realization of the inadequacy of its preparation for the impending conflict and is now working out with all possible urgency the most expeditious as well as effective measures for both offensive and defensive military preparation, and,

Whereas, in the perplexing circumstances of this emergency we believe it would be both wise and expedient in determining what course of action is best, to be guided very largely by the lessons resulting from the battlefields of Europe during the past three years, and,

Whereas, the most important as well as the most emphatic of all these lessons is the outstanding fact that a properly designed and well-constructed system of public highways is the fundamental basis of any scheme of national defense which can be relied upon in the final crisis, as such highways, strategically located and properly constructed, are in many instances more serviceable than railroads, for they can never be completely congested nor completely destroyed, and,

Whereas, it has been repeatedly and conclusively demonstrated that fortifications, however elaborately constructed and seemingly impregnable, are comparatively useless and easily destroyed when assaulted by the modern long-range gun and the high-explosive shell, and that a much more efficient system of defense is afforded by movable batteries of heavy, long-range ordnance which can be quickly transported and assembled at commanding salient emplacements, previously prepared, operating over a network of military highways, and,

Whereas, the cost of constructing one fortification, which could be completely destroyed within a few hours, and at best affording only doubtful protection to one locality, would be the equivalent to the cost of constructing scores of miles of first-class military highway affording even better protection to many localities, and the expense of maintenance would be practically the same in either case; and, in times of peace the fortification would be only a useless and expensive incumbrance while the highway would be even more useful as an economic resource than as a military asset, and,

Whereas, the universally recognized

axiom, that the strength of a chain is measured by its weakest link, so is a nation's military defensive power estimated by its weakest and most unguarded frontier, therefore as there are hundreds of miles of shore-line along the Pacific coast totally unprotected and absolutely inaccessible from the interior, but easily approached and open to attack from the sea, it is obvious that not only the Pacific slope, but the entire country is wide open to hostile invasion, now imminent at any moment; therefore, be it

Resolved, by the citizens of North Bend and Coos Bay, Oregon, in convention, this the 19th day of April, 1917, assembled to discuss and consider the problems of state highways, but especially the proposed Pacific Coast Military Highway, that we view not only with serious concern, but with actual anxiety, the contingency of hostile demonstration against the exposed ports and cities of the Pacific Coast with absolutely no means of defense whatsoever; and we urge immediate national consideration of the proposed Pacific Coast Military Highway, paralleling the coast line from Puget Sound to the Mexican boundary, as the most feasible and expedient defensive measure attainable within reasonable limits of cost and time, and that in event of an international peace settlement this military highway would be of even greater value as an avenue of commerce and a prime factor in the economic development of the Pacific Slope than it is now as a military necessity; and be it further

Resolved, that we call upon our representatives in the National Congress to present this matter in some concrete form for legislative consideration and action at the earliest practicable time.

IN THE DAY'S WORK.

There is no use telling you that life is full of ups and downs. You have known that from the first time that you stood on your two little feet for a few brief seconds, or if you haven't known it since then, you began to learn it at that time.

But what I started to say has nothing to do with teaching babies to walk. It has to do with full-grown men.

You see, this business of secretarying is a pretty swell graft. All a fellow has to do is to sit alongside of the President who does all the work, and twiddle a pencil, and once in a while scribble a few words, and then at the next meeting read the minutes while the crowd is gathering and getting acquainted. At least, that is about all that appears on the surface.

But once in a while a fellow quietly slips up behind in the dark and pulls something like this on the Hon. Sec.

"I sent you \$5.00 for one year's dues to your society, but never attended any meetings or received any benefit from your society. I wish you would take my name off your books as I do not care to make any further remittances."

You may not believe it, but allow me to assure you that I was more or less agitated upon reading this. Some folks might put it stronger, and insist that I was "riled up," as it were, and I do not know that I would care to dispute such a statement.

It is hard to say just what benefit the member thought that he would receive if he never attended any meetings. Had we been aware of the member's feelings in this matter, we might have sent a taxi for him on meeting nights, or returned the dues with interest after we were through with them, or—Oh, there are dozens of ways that we could have used the above mentioned five dollars so that he would have realized that he was being benefited. But we didn't. And he didn't.

All that we did do was to give his name, without distinguishing marks, a place among real engineers in the year book; to send him notices of all the meetings that were held during the year and a half that his name was on the books of the Society; to send to him the Journals and Bulletins of the Society as issued (we couldn't make him read them, now could we?); and we sent engineers to the company of which he is a member until they got one that suited them, and they have him yet, which is no small job in these times when good men are hard to get at the wages that are offered.

As I said before, we might have done more.

And as I didn't say before, he might have done more.

He might have attended the meetings and given the other members the privilege of knowing him. He might have contributed a paper to the Journal, and in this way given the other members the advantage of his technical knowledge while getting some mighty good advertising for himself and his firm. And he might have made such a confounded nuisance of

himself that he would have been elected Secretary, in which position he would have gotten, besides the emoluments appertaining to the office, much experience in English composition, which could not fail to be of benefit.

He might have done these things, and more. But he didn't.

He resigned, or at least that is what I am led to infer from the tone of his letter. And we presume that with the five dollars that he doesn't pay for dues this year, he will earn from thirty to fifty cents in interest. Or perhaps buy a sack of spuds.

So be it.

Now don't get the idea that this is the first man who has resigned since I have been secretary. Oh, dear, no!

Several have asked, in one way or another, to be relieved from further payment of dues.

And it isn't the "sassiest" letter that has come to my hands in my official capacity as correspondent for the Society. There are some "peaches" in the files.

When a man is broke, one can excuse his desire to reduce expenses, and when one has a grouch, it is expected that he will try to get it out of his system in some way, and what way is better than to write to the Secretary, who is paid for coming up smiling after absorbing all surplus bad temper of the various members?

But a letter like the above under a lithographed head of one of the firms which is making more money than a city employee, well, that rather gets me.

Fortunately the mail of the Secretary is not all of the same tone.

Here is one from a man who paid dues for three years before he got the results with which he has the goodness to say that he is pleased. He attended some meetings, but not all of them by any means; and he did another thing which I have been trying for many years to get each member to do for himself; he registered in the employment department.

Here is his letter:

"Several months ago I sent you a letter requesting you to place my name on file as an applicant for a change of position. I now take great

pleasure in informing you that through your efforts I have been successful in obtaining a position that will be more in line with my technical training, and which offers greatly increased opportunities for advancement. I feel that I owe the O. S. E. a debt of gratitude that will be hard to repay. It is not often that one can belong to an organization that renders its members such definite benefits as this, and I hope that in the future I may be able to do more to further the interests of the Society, and thereby help to extend its field of usefulness to help others as it has helped me."

Maybe he will be able to in some way help the friend who wrote the first letter. Who knows?

At any rate, he has helped the Secretary, for one letter like this takes away the sting of a dozen like the first, and fortunately there are really more of this kind than of the others.

We can help more people if they will but tell us what they want. And we would rather help a fellow get a better job than we would to eat; and we get just as much pleasure out of helping a man find a capable assistant. So, you see, there are lots of worse jobs than this one of being Secretary.

MINUTES OF THE MEETING OF THE OREGON SOCIETY OF ENGINEERS IN ROOM "A" OF THE CENTRAL LIBRARY THURSDAY, APRIL 5, 1917, AT EIGHT O'CLOCK P. M.

Vice President J. P. Newell called the meeting to order at eight o'clock, and introduced the speaker, Mr. J. W. Swaren, who addressed the meeting on "Some interesting and unique bits of engineering construction," illustrating his remarks by means of lantern slides.

His pictures, gathered from all parts of the world, gave the audience a very good idea of the way hydraulic projects are carried on in places where transportation facilities are not of the best.

A vote of thanks was given to the speaker for the instructive and entertaining talk and pictures.

The minutes of the meetings of March 16 and March 22 were read and approved without change.

An amendment providing for the establishment of local chapters of the Society in other towns of the state was read for the first time.

Upon motion, the meeting adjourned.
 ORRIN E. STANLEY,
 Secretary.

PERSONALS.

Past President Walter H. Graves, who has spent the winter at Cooston, Oregon, in charge of development work, was among those present at the meeting of the Society April 28.

Mr. Graves has had charge of the clearing of the site for the town of Crawford Point, the building of two docks and the design of a water supply for the place, besides which, he has had time to take an active part in the matters of general interest to the community.

The resolutions regarding the Pacific Coast Military Highway printed elsewhere in this issue bear testimony to the fact that Mr. Graves is very much alive to the necessity of military preparedness.

Mr. F. O. Broilli sends a check from Reno, Nevada, where he is now located with the Nevada Machinery and Electrical Co., engineers and contractors, 121 North Virginia Street.

Mr. Harrie C. A. Worrell is now with the Saw Mill Engineering and Construction Co., at Klamath Falls, Oregon.

He is engaged on the plans for a large mill and a dam, and would like to get the address of a good tracer on mechanical and architectural drawing.

Mr. C. E. Condit writes from Prescott, Arizona, where he is connected with the Arizona Power Co., as General Superintendent of Operation.

In spite of the fact that he misses the "Oregon Mists" he claims to like the country and to enjoy his work.

We shall miss him from our meetings, and will remember with pleasure the good work that he did for the organization while he was among us.

Lieutenant S. J. Benedict of the Engineer Officers Reserve Corps left on May 6 for San Francisco to take the three-months' training course for officers.

Lieutenant Benedict has been draftsman in the Bureau of Water Works, City of Portland, for several years.

Mr. Carl Rueter writes from "some-

where," that on account of being with the Third Oregon Infantry he has not been able to complete his application for membership in the Society.

AN INVITATION

Mr. H. L. Vorse,
President Oregon Society of Engineers.
Dear Sir:

On Saturday evening, May 19th, at eight o'clock in the Alisky Hall, Alisky Building, the stationary engineers' class of the Oregon Agricultural College will hold their certification exercises.

This class is composed of operating engineers of Portland and vicinity.

The lectures and work have been given under the supervision of the extension department of the O. A. C. with Prof. O. B. Goldman in active charge. The course has been given under the auspices of the International Union of Steam and Operating Engineers, Local No. 87, who first suggested the work three years ago.

The season just closing is the third that has been given, but the first in which real work and study have been attempted.

It is with a great deal of pleasure that the class requests the honor of the attendance of the Oregon Society of Engineers at the exercises on Saturday evening, May 19th.

(Signed) J. P. BYRNE,
Sec. of Educational Committee,
Local No. 87.

CORRESPONDENCE

May 9, 1917.

Mr. H. L. Vorse, President,
Oregon Society of Engineers,
Portland, Oregon.

Dear Sir:

I am returning herewith copies of the telegrams and correspondence relating to the Architects' License bill introduced at the last session of the Legislature.

This bill, after being presented to and approved by the Oregon Society of Engineers, was materially altered in such a way as to make it very objectionable to the engineering profession. These objections were brought to the attention of the American Institute of Architects by Mr. J. P. Newell of our society. In reply to Mr. Newell, the Institute stated that the bill in its final and altered form had been prepared by a committee of their body, and had never received the approval of the Institute itself. After the opposition of the Engineers' Society became apparent, no fight was made in support of the bill, and it was killed by the Legislature. Subsequent to this, I prepared for the "Bulletin" of the Oregon Society of Engineers an article on legislative matters, in which I referred to this bill, and being entirely unaware of the explanations which previously had been made, attributed it to the architects as a whole. This apparent repetition of criticism was of course very unfortunate.

I trust that the Architects will take the

liberal view that the affair was not one between the two societies in their corporate capacity, and I now appreciate that they were not responsible for the bill which was introduced into the Legislature. When I wrote my criticism of this bill I acted entirely on my own initiative, and the Oregon Society of Engineers was in no way responsible for my views on the matter.

Yours very truly,
(Signed) J. W. CUNNINGHAM.

Encs.

JWC:EPF

NEW MEMBERS

The following names were added to the roll of the Society at the last meeting of the Executive Board by unanimous vote:

ACTIVE MEMBERS

DANIEL BECKWITH, 426 City Hall, Portland, Oregon; Senior Draftsman, Department Public Works.

R. S. DULIN, 997 Cleveland Avenue, Portland, Oregon; Chemist, Department Public Works, Portland, Ore.

C. A. DUNN, Box 97, Tillamook, Oregon; Deputy County Surveyor, Tillamook County, Oregon.

RALPH A. GIBSON, 1220 Spalding Building, Portland, Oregon; Draftsman, Pacific Power & Light Co.

ALBERT C. JOHNSON, 890 East Salmon Street, Portland, Oregon; Statistical Clerk and Assessment Deputy, Department of Public Works, Portland, Oregon.

A. A. KIRKWOOD, Forest Grove, Oregon; City Engineer, Forest Grove.

JUNIOR MEMBERS

WILLIAM ANDERSON, 328 N. 10th Street, Corvallis, Oregon.

G. S. VINCENT, 2815 S. Calhoun St., Ft. Wayne, Indiana; Assistant on the Engineer Corps, Maintenance of Way, Pennsylvania R. R.

Keep these names, and watch the list grow from month to month. Our membership committee is very much alive, and will therefore appreciate your help. Send any suggestions that you may have to Mr. S. B. Phillips, 1209 Wells-Fargo Building, Portland, Oregon.

APPLICATIONS FOR MEMBERSHIP

Below are given abstracts from the applications for membership which are now on file in the Secretary's office.

If no objections to the admission of any of the applicants is received by the Executive Board before the day of the regular meeting in June, the Board will cast the ballot of the Society for the admission of the candidates.

BENNETT, MANCHE O., c/o State Highway Engr., Salem, Oregon. (Age 37, born Decatur, Texas.) (Graduate High School, Ellensburg, Wn. About three years' work of the C. E. course at the University of Washington, Seattle.) May 1905 to June '06 from transitman to Chief of Party with Alaska Central Ry, Seward, Alaska; June '06 to Jan. '08, Locating and Resident Engineer with Copper River &

N. W. Ry., Katalla, Alaska, excepting 4 mos. during winter of '07-'08 as Resident Engr. on Chicago & Milwaukee in Wash.; Jan. '08 to Aug. '08, topographic and mining work, Denny Renton Co, Taylor, Wn.; Aug. '08 to Jan. '11, Chief Engr. Controller Bay & Behring River Ry. Co., Katalla, Alaska; Jan. '11 to July '11, Chief Engr. Northern Development Co., Katalla, Alaska; July '11-Jan. '12, Asst. Engr. Canal Construction, Ontario, Ore.; Jan. '12 to Nov. '12, Chief of field party water power development in Wash.; Mar. '13 to Nov. '13, Asst. Engr. on Ry. Valuation O.-W. R. & N. Co., Seattle, Wash.; Jan. '14 to Jan. '15, Resident Engr. Const. on State Highway Comm.; Jan. '15 to Mar. '16, Asst. Engr. and Cost Keeper Ore. State Highway Comm.; Nov. '16 to present time, Locating and Reconnaissance Engr. Oregon State Highway Comm., excepting 4 months on irrigation and Jackson County law suit.

LENOIR, RENE, 364 Fourteenth St., Portland, Oregon. (Age 32, born Le Havre, France.) Mar. 1903 to July 1909, Draftsman with O.-W. R. & N. Co.; July 1909 to May 1914, Asst. Engineer O.-W. R. & N. Co.; May 1914 to Sept. 1915, Chief Draftsman O.-W. R. & N. Co.; Sept. 1915 to Sept. 1916, Draftsman S. P. & S. Ry. Co. Endorsed by John W. Cunningham.

MONTAGUE, S. S., 45 4th Street, Portland, Oregon. (Age 42, born Oakland, California.) (S. B. in Mechanical Engineering, Harvard University, 1897.) Cashier for Warren-Scharf Asphalt Paving Co., N. Y., 1898-1899; 1899-1902, Cashier and Asst. Supt. Warren-Burnham Co., Contractors, New York; 1903-05, Supt. of Construction Warren Bros. Co., Boston; 1905-07, Supt. of Warren Construction Co., Portland, Contractors; 1907 to present time, President and Manager of St. Helens Quarries Co., Portland; 1909 to present time, Vice Pres. and Manager Montague-O'Reilly Co., Portland Contractors. Endorsed by John W. Cunningham.

CONVILL, JAMES O., 318 City Hall, Portland, Oregon. (Age 33, born Goffs, Kans.) (B. S. in Engr., University of Utah; M. A., Pacific University.) Supt. of Parks, Portland, Oregon. Endorsed by C. P. Keyser and Orrin E. Stanley.

STOCKMAN, L. R., Box 635, Baker, Oregon. (Age 40, born Milton Junction, Wisconsin.) (Graduate of the University of Wisconsin, 1902, B. S. degree in Civil Engineering.) Season of 1902, Engineer on construction for Knoxville, La Follette and Jellico Railroad and Engineer for Louisville Property Co. in the mining department; Nov. 1902 to May 1904, Engineer U. S. G. S. in the Chicago district for the investigation of water power and water resources; May 1904 to Mar. 1910, Engineer U. S. Reclamation Service on various irrigation projects in Canada, Montana and Wyoming in responsible charge of location and construction of Shoshone Dam near Cody, Wyoming; Mar. 1910 to Sept. 1911, Engineer in charge of all storage works for the Laramie-Poudre Reservoirs and Irrigation Company in Colorado; Sept. and Oct. 1911, in the employ of the state of Colorado as special Engineer on interstate

investigations of irrigation work; Feb. 1912 to date, in private practice on irrigation water power and municipal engineering in Oregon. Endorsed by H. L. Vorse and S. B. Phillips.

LAZELL, E. W., 537 Railway Exchange Bldg., Portland, Oregon. (Age 46, born Philadelphia, Pa.) (Worcester Polytechnic Institute, Worcester, Mass.; B. S. degree 1890; University of Goettingen, Germany, Ph. D. 1896.) 1890-91, Chemist, Pennsylvania Lead Works; 1891-93, Manager Virginia Brick Company, Roanoke, Va.; 1896-98, Assistant Chemical Laboratory, Washington University; 1898-1900, Assistant Professor Chemistry New Hampshire State College; 1900-1907, Vice President Spackman Engineering Co., Philadelphia; 1907-1912, Consulting Engineer, Philadelphia, Wilmington, Delaware; 1912 to date, Chemical Engineer, Portland, Oregon. Member American Institute Chemical Engineers; member American Society Chemical Engineers; member American Society for Testing Materials. Endorsed by R. E. Cushman and S. B. Phillips.

HAMMOND, H. S., 711-712 Couch Bldg., Portland, Oregon. (Age 25, born Tacoma, Wash.) Local Representative of Sound Const. Engr. Co. from 1913 to Aug. 1916; Aug. 1916 to date, Local Representative of J. M. Dougan Co. Endorsed by S. B. Phillips and R. E. Cushman.

KELLY, JOHN GEO., 711 Pittcock Block, Portland Oregon. (Age 29, born Grants Pass, Ore.) (Mass. Inst. of Tech., B. S. in Civil and Sanitary Engineering, 1914; University of Oregon, B. S. in Mechanical Engineering, 1912.) Consulting Engineer. Endorsed by S. B. Phillips and R. E. Cushman.

BATCHELDER CHAS. L., 416 Couch Bldg., Portland, Oregon. (Age 30, born North Reading, Mass.) (Grade Schools North Reading, Mass.; High School, Lowell, Mass., 1901-04; Mass. Inst. of Tech., Degree of S. B. in 1909.) 1906, Rodman; 1909-12, Inst. man for City of Lowell, Mass.; 1912-17, Jr. Engineer U. S. Geol. Survey. Endorsed by Fred Henshaw and R. E. Cushman.

MARRION, A. F., 1208 Wells-Fargo Bldg., Portland, Oregon. (Age 40, born Baltimore, Md.) (High School.) 1898-99, N. P. R. Location; 1899-1900, G. N. R. R. Location; 1900-06, C. & P. S. R. R. Gen. Engr. Work-Asst. Engr.; 1906-08, O. & W. Ry. Gen. Engr. Work-Asst. Engr.; 1908-14, Contracting; 1914 to date, O.-W. R. & N. Co., Asst. Engr. Endorsed by R. E. Cushman and S. B. Phillips.

WENTZ, FOSTER P., 408 Wells-Fargo Bldg., Portland, Ore. (27 years, born Columbus, Ohio.) (Oregon Agricultural College, Civil Engineering Dept., from Sept. 1909 to Febr. 1912.) June 1910-Nov. 1910, Transitman, U. S. G. S., Alaska; June 1911-Sept. 1911, Draftsman, U. S. F. S., Republic, Wash.; Febr. 1912-Apr. 1913, Topographer and Draftsman, Oregon Electric Ry.; Apr. 1913-Aug. 1913, Asst. Engineer G. N. Ry. Co., North Dakota; Aug. 1913-Oct. 1914, Asst. Engineer, Tumalo Irr. Proj., Laidlaw, Ore.; June 1915-Mar. 1916, Draftsman, Pac. Tel. & Tel. Co., Portland, Ore.; Mar. 1916 to present, Asst. Pilot, O.-W. R. & N. Co., Portland,

Ore. Endorsed by John Dubuis and S. B. Phillips.

GREEN, J. W., c/o Fargo Engineering Co., Jackson, Mich. (24 years, born Jefferson City, Tenn.) (B. S. in C. E., Oregon Agricultural College, 1916.) July 15, 1916-Nov. 1, 1916, Recorder, U. S. G. S.; Jan. 15, 1917-Mar. 10, 1917, Engineering Corps of the Penna. Lines West of Pittsburgh, Eastern Division; Mar. 12, 1917, to date, Tracer and Detailer, Fargo Engineering Co., Jackson, Mich. Endorsed by S. B. Phillips and Orrin E. Stanley.

MCLEOD, J. C., 1915 I St., Bellingham, Wash. (Age 29, born Bellingham, Wash.) (University of Wash., 1907-1910.) May-Sept. 1910, Levelman, U. S. & Canada Boundary Survey; Sept. 1910-July 1913, Transitman, Res. Engr., Charge of Party for Stone & Webster; Oct. '13-May '14, Transit-Location, Oregon State Highway Comm.; May '14-Apr. '15, Res. Engr., Oregon State Highway Comm.; Apr.-Sept. 1915, Draftsman, Portland Gas & Coke Co.; Sept. 1915-Dec. 1916, Loc. Engr., Oregon, Cal. & Eastern Railway; Dec. 1916 to date, Draftsman, O.-W. R. & N. Ry. Endorsed by John Dubuis and S. B. Phillips.

FRANTZ, GEORGE W., 448 Eleventh St., Portland, Ore. (Age 31, born Coal Center, Penna.) ('06-'08, Ohio Northern University, Ada, Ohio; Ohio University, Athens, Ohio, Special Course.) '04-'06, Rodman, U. S. Steel Co., Donora, Pa. '08-'10, Rodman and Draftsman, Sunday Creek Coal Co., Nelsonville, Ohio; Apr. '10-Apr. '11, Inst. and Inspector, O.-W. R. R., Seattle, Wash.; May '11-Aug. '13, Inst. and Draftsman, S. P. R. R., Portland, Ore.; Aug. '13-June '14, Asst. Engr. on Maintenance, O.-W. R. & N. Co., Portland, Ore.; June '14-June '15, part owner with W. F. Mielke Fresno Map & Blue Print Co., Fresno, Cal.; June '15-June '16, Draftsman and Res. Engr. State Highway Comm. of Oregon; May '16-Nov. '16, Company Engineer, Clarke-Henry Const. Co.; Dec. '16-Apr. '17, Draftsman, O.-W. R. & N. Co., Portland, Ore. Endorsed by John Dubuis and S. B. Phillips.

GREEN, EVERETT R., Oregon City, Oregon, R. F. D. No. 5. (Age 30, born Oregon City.) (Student in Mechanical Engineering at the Oregon Agricultural College for two years, from Sept. 1903 to June 1905.) Oct. 1905-May 1906, Rodman, O. R. & N. R. R. Loc.; June 1906-Aug. 1906, Tapeman, O. R. & N. Maintenance; Sept. 1906-Febr. 1907, 2 mo. H. Chain, 4 mo. Topographer, N. P. R. R. Loc.; Mar.

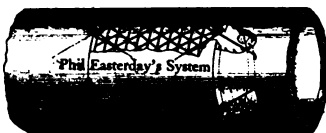
1907-Sept. 1907, Rodman, J. L. McPherson R. R. Loc.; Sept. 1907-Jan. 1908, Chainman, R. S. Greenleaf, City Work; Jan. 1908-May 1909, worked at placer mining in Cal. near Placerville; May 1909-June 1910, Levelman, Gilmore & Pittsburgh R. R.; July 1910-Aug. 1910, Asst. on Reconnaissance, O. E. Ry.; Oct. 1910-April 1911, Rodman, O. T. R. R. Construction; Apr. 1911-Jan. 1912, for self as Merrill & Green at Oregon City, Ore.; Jan. 1912-June 1912, 3 mo.; Levelman, 2 mo. Transitman, O. E. Ry. Location; June 1912-Dec. 1912, 6 mo. Transitman, 12 mo. Res. Eng., Hegart & Clarke, Logging Roads; Apr. 1914-Mar. 1916, 9 mo. Transitman, 14 mo. Res. Eng., Ore. S. Hwy. Com.; March 1916-Oct. 1916, Estimator and Inst. Man, Alaska Eng. Com. R. R. Const.; Febr. 1917 to date, Computer, O.-W. R. & N. Co. Revaluation Dept. Endorsed by Ernest P. Rands and S. B. Phillips.

O. LAURGAARD FOR CITY COMMISSIONER



Elect a qualified Civil Engineer of 14 years' practical experience to administer one of the engineering departments of the city.

He was endorsed by the Desert Land Board, including the last two Governors of Oregon, as an executive, and for energy, ability, economy and efficiency as a Civil Engineer. (Paid Ad)



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Vol. 1 No. 1



BULLETIN

No. 19

PORTLAND, OREGON

September, 1917

THE JUNE 28TH MEETING.

The audience at the meeting on June 28th was composed largely of speakers, which is, after all, a pretty good make-up for an audience. In this way you are sure that the speaker before the last will have at least one hearer, and unless unusually impolite, he will stay to hear what the last speaker has to say.

But this meeting was not so bad as all that. It was not bad at all.

The trouble with the abstentees was the same as on other occasions when local speakers are announced. All of our members had one of four reasons for not coming out, and these are about as follows:

1. "I know more about that subject than all the speakers together."

2. "I don't know anything about that subject, and don't want to know anything about it."

3. "My wife has made a date for this evening, and I wouldn't dare to disappoint her." (We have some of the most dutiful and loving husbands in our Society that can be found anywhere in the world.)

4. "I have to work in the garden."

But there were thirty-three unfeeling brutes who dared ignore their wives' engagements, who shirked their duty to their country to the extent of allowing the weeds to get one day's more start of them, and who were brazen enough to acknowledge their ignorance of the subjects under discussion by coming out to hear what others might have to say about them. And these thirty-three were well repaid for their efforts, as the brief outline of the program given below will show.

In the absence of the President and all the Vice-Presidents the chair was occupied by the Secretary.

Mr. A. G. Clark, Manager of the Home Industry League was the first speaker. He urged the use of "Made in Oregon" products, and called attention to the absurdity of sending the greater part of the Oregon wool clip to eastern cities to be made into clothing and returned, instead of patronizing the manufacturers who have had the nerve and enterprise to make clothes for Oregonians in Oregon of Oregon wool.

He wished the engineers to realize that the problem of modern existence is one of reciprocity, and that unless they boost for local industries there will be less work for local engineers.

Mr. Cunningham voiced the general sentiment of the engineers later in the evening when he urged that our leading citizens and local governing boards should use local engineers to design their buildings and bridges and docks and roads instead of getting men from the East for these works.

Mr. H. E. Plummer, Inspector of Buildings for the City of Portland gave some interesting figures and facts relative to the regulation of building heights in New York City, and the application of these to Portland conditions.

It is hoped that we will be able to print Mr. Plummer's paper in full in a later issue of the Journal.

Mr. E. B. MacNaughton spoke of City Zoning and Industrial Development, giving his views as both an architect and a real estate operator. He contended that zoning is a necessity if values of real estate are to remain at all stable, and that something needs to be done at once toward establishing a board that will have well defined power to make the necessary investigations and studies, and after the recommendations are made, and the ordinances drawn, will have the power

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to see that the ordinances are properly enforced.

Mr. Ellis F. Lawrence spoke of "Architecture and Aesthetics."

He said that as a city is more beautiful, its citizens are more happy and healthy, and gave as an example one of the manufacturing suburbs of Liverpool in which the living conditions are so far superior to those in the city itself that the children of eleven years are several inches taller than those of Liverpool, while the death rate is even less than in Portland, which is of course less than in many of the larger English cities.

He also is of the opinion that beauty in a city can be best secured by proper planning, and then by working to the plan.

Mr. J. J. Sayer, Secretary of the Portland Building Owners and Managers Association spoke in favor of limiting the heights of buildings. This seems to him to be the only way to steady the values of business property and rental values in business buildings. Many of the tall buildings of the country are, according to Mr. Sayer, monuments to the folly or the

pride of their builders, and are not at all profitable as investments.

Mr. C. Lewis Mead of the Realty Board says that laws limiting building heights will drive investors away from Portland, and as every investor that escapes from a real estate salesman is a dead loss to that salesman, it is not difficult to understand why he does not favor legislation that tends to make his work harder.

Mr. Tourtellotte agreed with Mr. Mead that there should be no limit to the height of buildings, but recognizing the right of others to a fair share of the light and air, thought that the area which the building occupies should be smaller as the building is increased in height, so that the very tall buildings would be as poles in a large open space, casting shadow but for a short time on any one place, and allowing a free circulation of air on all sides.

Mr. McGonigle also spoke.

As the meeting, in deference to a well established Portland custom, did not begin until nearly half an hour after the time announced, discussion was cut somewhat short by the lateness of the hour when the prepared part of the program was finished.

The question of zoning is an important one, and one with which engineers and architects are better fitted to deal than the average citizen, and which they therefore should take up and bring before the public in such a way as to produce desired results with the least possible delay.

If this is not done promptly some of our choicest residence districts will be encroached upon by small factories and then by larger ones, followed by a decline in values and general dissatisfaction of the residents of the districts affected.

Our troubles are not all in Europe, nor are all the engineers with initiative there. Let some of the men who are here tackle this problem of such vital interest to the people of Portland and produce results which will show the property owners that we have their interests at heart.

"DOING OUR BIT."

By Orrin E. Stanley

Are you in the Food Drive?

But why ask? Of course you are, and with blistered hands, and aching back you are doing what you can to help back the Kaiser off the map by "cultivating your acre, however small."

As additional information, you are also learning something as to the size of an acre; and say! it's some area, isn't it?

In school we learned that an acre is ten square chains, 160 square rods, or 43,560 square feet, and none of these definitions, it now appears, conveyed an adequate idea of the immensity of an acre of land.

In our engineering practice, I fear, we have developed no greater respect for this unit of measure, for we have dealt with sections, of which an acre is but a small part; and with townships which include many sections; and on our maps of counties and states an acre is about the size of the hole made by a thumb tack. A half-acre is scarcely to be thought of seriously—that is, on the map.

But I met a half-acre face to face this spring. It is partly on edge; enough so, that its surface is practically at right angles to the sun's rays; and the way that those rays do strike the ground gives one great respect for their power to raise almost anything.

I made a sketch map of this half-acre and drew nice, straight lines at regular intervals to represent rows of beans and potatoes and sundry other crops. It looked pitifully small. I could put it in my pocket, which I did, and carried it about with me for days, feeling sorry that it wasn't at least a full grown acre instead of half that area.

I pestered the poor down-trodden farmer for days and weeks to plow this patch for me, until at last I caught him in the act. And then came the awakening. For a time that little tract threatened to spread all over the Tualatin valley. But we got it stopped temporarily. It only achieved

the size that I had thought of as half a section, but there seems to be no guarantee that it will remain even that small. The rows seem a mile long and numberless, and this brings me to another question, or group of questions.

How many beans will make a meal for a mole?

How many moles can comfortably live on a half-acre?

About how much more will it cost me in cash and manual labor to furnish beans and put them in the ground to keep my moles from starving until my neighbor's crops are ready for use?

Perhaps some of our mathematical friends can solve this problem, but it looks to me as though there are too many indeterminate factors for my mind to master. However, I have great respect for mathematics in the hands of an expert at juggling figures and formulae, and some one may bring in the result on something like a half-acre of paper.

Speaking of moles; how would it be to steal their system of tunnelling? Wouldn't it be a good idea to use something like that in making a quiet approach to the enemy, all nicely out of the way of bombs and gases and other annoyances? And its usefulness need not be confined to warfare, for a similar scheme could be used for building sewers and other underground works without disturbing the pavements.

If anyone wants a perfectly able flock of moles to study, or to use in their present condition for prospecting work, they may have them in any number up to the full capacity of a half-acre, for I will be glad to release all right and title to them upon payment for this advertisement.

CONCERNING CO-OPERATION.

By Orrin E. Stanley.

There seems to be a shockingly persistent notion in the minds of people in general, and of engineers in particular, that for a man (and especially for an engineer) to aspire to a position

which pays a greater salary than he has received since he came to Portland, is but one step removed from the criminal.

It matters not that the man in question has been studying to gain expert knowledge of the work he hopes to do, while his detractors were endeavoring to keep abreast of Charlie Chaplin's latest pranks, or were practicing the newest fancy steps to the music of the orchestra. As they see it, "He never had a job that paid such a salary, and it stands to reason that he is not capable of filling this one."

We are all willing to admit that we are very much underpaid, that we are not appreciated at anywhere near our true worth, and that if the other fellow didn't have such an almighty drag with "the big boss"—oh, well, you can fill in the rest to suit your own case. It is all alike. Or if you find a man who will not admit these things for himself, ask his wife. She will tell you that it is all true, except that there is much more of the same yet to be told. But when it comes to acknowledging that the other fellow has the ability to earn his present salary, to say nothing of double that amount, we hold up our hands in horror.

Gol ding it, men, can't you see that unless you are willing to get out and holler for a comrade when he is after a good position, instead of doing your darnedest to queer his game, that you are putting a mighty big crimp in your own chances to get that five dollar raise that you have been promised ever since the war began, and which you know deep down in your heart that you need, even if you don't earn it?

If you are unable to get that view of the matter, try helping some fellow for the fun of helping him. It will do you good whether he appreciates it or not; but the chances are that he will remember you, and will send beneficent thought waves in your direction some time when you are down in the mouth and are in need of a supernatural stimulant.

THE HORRORS OF WAR.

The following comes from one of our Juniors.

What do you think we may expect when he becomes an Active Member?

A husky young American, age "21 to 30" was calling on an engineer friend. He had been whining for an hour about Registration Day, and it was apparent that he hoped to evade registration. Suddenly he asked what was the purpose of the instrument with which he had been toying during his conversation.

The Patriotic Engineer proceeded to explain:

"That's a slide rule, used for quick figuring. For instance, if 23 sheriffs are after you on Registration Day, to figure how to get away, you put the slide under 23 and that holds the sheriffs tight. Meantime you hit it up through the wilderness of logs on the runner, which moves faster because it has a slacker fit."

DO YOU GET THE MORAL?

Two Boy Scouts were returning from a parade the other day. Their uniforms were their introduction, and they were getting better acquainted by the usual method of asking questions.

"What does your dad do?" asked the taller of the two.

"He is an engineer," replied the other. "He designs and builds bridges."

"Oh, Gee!" exclaimed the first, "I'd rather be a real engineer and pull a passenger train."

APPLICATIONS FOR MEMBERSHIP

Following are extracts from applications for membership in the Oregon Society of Engineers on file in the office of the Secretary.

If no objections to the admission of the applicants in the grades for which they have applied are received by the Executive Board before July 20, 1917, the Board, upon the recommendation of the

Membership Committee will proceed to ballot upon the names for the Society.

ORRIN E. STANLEY,
Secretary.

Note:—This was prepared for publication on July 1. The Executive Board will probably not act upon these names until Oct. 1.

APPLICANTS FOR ADMISSION AS ACTIVE MEMBERS

ASPLAND, Hubert G., 624 Marshall St., Portland, Ore. (Age 32. Born England.) (Two years at Berkeley and 4 years under a graduate engineer.) May to September, 1906, locating engineer Vallejo & Northern Electric Road; 1906-1907, assistant on Hamilton City branch for S. P. Co., in charge of location and construction; 1908-1909, transitman Nicola Valley irrigation project; 1909-1912, transitman City of Portland and on subdivision work in Portland and on private work; 1912-1915, chief assistant Astoria City Engineer's office; 1915-1916, private practice, land surveying, hydraulic engineering and paving; at present draftsman O-W. R. R. & N. Co. Endorsed by John Dubuis and J. G. Garrow.

DORMAN, Bertram L., Vancouver, Wash. (Age 43. Born Eldora, Iowa.) (Graduate I. S. C., Ames, Iowa, 1909.) Feb., 1910-Jan. 1, 1917, in the office of City Engineer Vancouver, Wash., as City Engineer from Jan. 1, 1913, to Jan. 1, 1917. At present County Engineer Clarke County, Washington. Endorsed by S. B. Phillips and R. E. Cushman.

LAWRIE, Harold Newbold, Oregon Building, Portland, Ore. (Age 34. Born New York City.) (Montclair Military Academy 1898-1901; Columbia University 1901-05; degree of Engineer of Mines from School of Mines, Columbia University, New York, 1905.) 1905-1907 manual labor underground and prospecting in the field; 1907-1916 consulting chemist, geologist and mining engineer for clients both East and West having mining holdings in Idaho, Washington, Oregon, British Columbia and New Jersey and New York; was appointed a member of the Oregon Bureau of Mines and Geology Commission by Governor West in 1913 and elected chairman of the commission; 1915 was appointed by Governor Withycombe to the same commission and elected chairman; again appointed by Governor Withycombe in

1917 and still serving as chairman. Endorsed by H. L. Vorse and Orrin E. Stanley.

LINKINS, Nelson E., Waluga, Ore., Box 15 (c-o P. G. & C. Co., Portland.) (Age 26. Born Chicago, Ill.) (Oregon Agricultural College 3 years 3 months. Mechanical engineering September, 1910, to November, 1912.) Summers, 1911-12, machinist and blacksmith helper E. L. Taylor Co., Portland; May, 1912-Nov., 1912, foreman Corvallis Concrete Co.; Nov., 1912-Jan., 1913, machinist Pacific Iron Works, Astoria, Ore.; Jan.-Feb., 1913, machinist Astoria Iron Works; Feb.-Aug., 1913, machinist on piece work at Astoria and Portland; Aug., 1913-Jan., 1914, salesman J. K. Gill Co., Portland; Jan.-March, 1914, machinist E. L. Taylor Co., Portland; March-April, 1914, storekeeper Oregon Brass Works, Portland; April-July, 1914, purchasing agent and assistant to superintendent of works Oregon Iron & Steel Co., Oswego, Ore.; July, 1914-March 16, 1917, foreman of installation and chief clerk of construction Home Telephone Co., Portland; March 16, 1917, to date engineer and draftsman Portland Gas & Coke Co., Portland. Endorsed by F. A. Naramore and E. Hippely.

WENTZEL, George T., 801 Lewis Building, Portland, Ore. (Age 38. Born Cincinnati, Ohio.) 1899-1902, estimator Stewart Iron Works, Cincinnati, Ohio; 1902-03, structural engineer Burrell Construction Co., Seattle; 1904, structural engineer J. R. Bowles, Portland; 1905, superintendent and engineer J. L. Cannon, contractor, Seattle; 1906, general superintendent General Contracting Co., Seattle and Spokane; 1907, architect and engineer, Spokane; 1908-11, contracting, Spokane; 1912, structural engineer W. P. White, architect, Vancouver; 1913-14, contracting, Spokane; 1914-15, structural engineer Washington Portland Cement Co.; 1916-17, consulting and contracting engineer Burrell Engineering & Construction Co. Endorsed by S. B. Phillips and R. E. Cushman.

BAXTER, H. D. G., 576 E. 11th St. N., Portland, Ore. (Age 36. Born England.) (Ohio Northern University 1907-09, Massachusetts Institute of Technology 1909-10.) 1903-04, draftsman Grand Trunk R. R.; 1905-06, draftsman U. S. engr. Dept.; 1910-12, office engineer P. R. & N. R. R.; 1913 to date inspector and mechanical engineer U. S. Engr. Dept. Endorsed by R. E. Cushman and S. B. Phillips.

2016
OR B

Engineering

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OREGON SOCIETY OF ENGINEERS — BULLETIN —

No. 20

PORTLAND, OREGON

October, 1917

GREETINGS

Ah, how are you, old top?

We've had a deuced narrow escape, don't you know, from suffocation.

Last month we were tucked neatly under the front cover of our big brother, the Journal.

Nice place, and all that, don't you know, old chap, but rather warm for such nice fall weather, eh, what?

But now we've gotten our breath again, wiped the sticky sweat from our rosy cheeks, and stepped out into sight and hearing.

And this is what we want you to hear:

The Bulletin is a direct drain on the treasury. Practically no part of its cost is covered by advertising.

Do you think it is worth continuing or shall we use the money to buy Liberty Bonds?

Don't be bashful.

Speak up.

SOME EXPLANATION

Of the blank space in the last number of the Bulletin seems called for.

That was all that was printable of a most forceful article giving the Secretary's views on the Kaiser. Even the title had to be censored, and for a time it was thought best to say nothing at all about it, but some of our subscribers not needing a supply of white paper have asked why they were not provided with their money's worth of printed matter.

Our only regret is that we are unable to furnish unexpurgated copies of the censored article to those of our friends who can be trusted to keep a secret, but it can't be done. So don't ask for it.

THE EXTENSION LECTURES

The first lecture of the Oregon Agricultural extension courses given under the auspices of the Oregon Society of Engineers, was delivered on Saturday evening, Oct. 6th, by Professor Otto B. Goldman, at the lecture room of the East Side Branch Library, this being the initial lecture of the Thermics Course. Advance proofs of the lecture were furnished to those present, the regular publication in the Journal, in which the lectures will regularly appear, being unavoidably delayed.

The attendance and interest shown indicated that this course will prove to be of great benefit to the members.

THE NEXT LECTURE WILL BE THAT BY PROFESSOR C. B. McCULLOUGH, BEING LECTURE No. 1 OF THE COURSE IN STRUCTURAL ENGINEERING, ON SATURDAY EVENING, OCT. 13TH, AT THE SAME PLACE.

INFORMATION WANTED

Will you not please send to the Secretary information as to the rank, and branch of the service of your engineer friends who are in their country's service?

We want to publish this information for the benefit of our readers, and must ask all to contribute.

Please do this today.

OFFICERS

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 J. C. Stevens, 1st Vice President.
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IT PAYS TO ADVERTISE.

Some time ago I admitted that there are some things in the mathematical line that are beyond my comprehension.

Perhaps this admission was an error in judgment on my part. At any rate it was then and still is the truth; but perhaps a course of the O. A. C. Extension lectures this winter may have a tendency to remedy matters, and then, again, maybe it will not.

A letter received since the last Bulletin went to press seems at first glance to clear up matters very nicely, but as I happen to have inside information—to have access to the answer book, as it were—I am inclined to doubt the efficacy of mathematics in every case.

But on the other hand, there are cases where a mathematical solution is the shortest route to the desired goal, and as these cases are of frequent occurrence, it is well that an engineer should have at his command a sufficient knowledge of mathematics which, if used with judgment, should smooth out many of the rough spots in his practice.

The letter responsible for this outburst follows:

My Dear Mr. Bulletin:

One day I saw you on the electric train. I was going out to a decent place called Garden Home. You got off at Capitol Hill. When you got off you left something on the train—it was a sigh about as big as that cedar chest of yours; about twice the size of your hat rack. In getting off I noticed something in your hind pocket. No, it was just a slip-stick, containing canned math. If you had known how to use it you could have worked the problem yourself. However:—

(1.) Example. How many is half an acre?

Solution. Let us call (x) equals half an acre.

By equation EZ, we see at once that one-eighth of an acre is a lot (L).

Wherefore (rejoice), a half acre is a lot (L) to the fourth power, i. e.

x equals L4.

Answer.

(2.) In relation to the raise of the sun and rays of the land, even a superficial cost analysis will show that the problem is statically indeterminate. Therefore parallel to the earth

Solubility.

(A) In case your overturning moment (U) would be

U equals $ld \sin x$

where l equals your natural inclination, and therefore your condition must have been very unstable.

Therefore we are forced to the conclusion

(B) That your inclination was parallel to the earth which thus becomes your Most Probable Position.

Q. E. D.

Omnia Gallia—I mean, all matter is divided into three forms (1) a-tom, (2) a-mole, and (3) a-molar.

A-mole equals a bunch of a-toms.

A-molar equals a bunch of mols.

So I presume you wanted to have your molars removed.

Answer. See a dentist.

Q. E. F.

Yours very truly,

FAITHFUL READER.

Now, what do you know about that?

Here we have the pitiable sight of a man dragging the noble science of mathematics down to the plane of advertising for Painless Puller, the darling dentist.

But he will answer that he is at the same time doing a little boasting for his favorite tool of the trade—mathematics.

And so it will be the best policy to forgive him this time on condition that he promise to be good in the future.

The Employment Bureau of the Society is coming nearer to taking its true place than ever before.

More men have been placed in good positions this summer than in any previous year, and there are still some high grade men available.

We want places for these men and want men to register for other places that are continually being brought to the attention of the Secretary.

WAS THERE A GOOD CROWD AT THE LAST MEETING?

Certainly there was.

It might sound egotistical to tell just how good the crowd appeared to each of the men who braved the two hundred and fifty restraining causes and went to the Library to hear what the speakers had to say, for each of the audience was so large a part of the crowd that he might almost be accused of speaking mainly of himself.

And yet it was a good crowd, all things considered.

"You see, my wife has been to the farm and brought home a lot of corn, and I might have to help her can it," said one.

Another confided to the Secretary that some friends from up the Valley had dropped in, and much as he hated it, he would have to go to the theatre with them.

It is not considered good form to preach, so I will refrain from doing so, though in times past I have been accused of being a preacher. But I would like to emphasize this statement, because I so thoroughly believe it to be true, that no one who will attend the meetings of our society in the right spirit will have any cause to regret having thus spent his time.

We have started a series of College Extension lectures, and if you do not attend one or more of these courses, you will wish in the spring that you had. Yes, you will.

NOW, ALL TOGETHER!

Masters of Engineering, no less, that is what we of the Oregon Society of Engineers are aiming at. We want the United States to lead the world—and Oregon to lead the United States, and the Oregon Society of Engineers to lead Oregon. And right now is when we get the jump on the rest of the country. We never did claim to "know it all." That's why we are going into Extension Engineering, because we are going to try to see how nearly we can come to being absolute masters of our profession. And we are not going to overlook any of the cards in getting there, either. If mathematics is the key to success, full mastery of engineering in the highest sense, then we're going to get that key or an exact duplicate of it. Now is the time for doing, not talking.

And we are not going to try to "drive railroad spikes with a tooth-pick." If it takes lots of technical artillery to win, we will have the most, if it takes big guns, we'll have the biggest. We are not going to look up at men like Maxwell, Clausius and Steinmetz as demi-gods, as the unattainable, neither do we want to pull them down to the common level, for it can't be done. But we are going to gain their level, and then try to see how much we can pass them!

The officers of the Oregon Society of Engineers have been trying long and hard to find the best way to give practicing engineers an opportunity to help themselves to reach the highest possible standing. So far, the opportunity to progress has been denied the engineer. Four years of training in boyhood is not a very broad foundation on which to build. But now, to review some of the technique that we have forgotten and to advance still further to the very latest developments in scientific knowledge, with mature minds fortified with a great amount of practical experience—what an opportunity! None of us can afford to overlook it—and none of us will!

WANTED—**MECHANICAL DRAFTSMEN**

Permanent position in Portland, \$85.00 per month. Ask the Secretary.

FOR SALE—**DRAFTING ROOM FURNITURE**

Also lease of desirable office room. Cheap as dirt after the "boom" has passed. The Secretary will tell you about it.

EXPERIENCED CONSTRUCTION ENGINEER

open for engagement—engineering or other place where his knowledge will be of service. Past conscription age, but full of pep. See the Secretary.

APPLICATIONS FOR MEMBERSHIP

The following are abstracts from applications for membership and transfer to higher grade in the Oregon Society of Engineers, now on file in the Secretary's office.

Should no objections to the admission or transfer of these applicants be received within twenty days from the publication of this notice, the Executive Board will, upon the recommendation of the Membership Committee, ballot upon the names.

ORRIN E. STANLEY,
Secretary.

DEVEREAUX, Harry E., Eugene, Ore. (Age 27, born Michigan.) (University of Oregon—B. S. 1912.) Summer '04-'05-'06-'07 compassman for estimators and freight road surveys—Red River Lbr. Co., Akeley, Minn.; '08 chairman P. B. Tel. and Tel. Co., Salem-Eugene; '09 transitman and draftsman C. H. Kain, Eugene, Ore.; '10 transitman and Field Boss, Eugene to Coast R. R.; '11 supt. const. dam at Monroe, etc., T. H. Ellis, Eugene; '12-'13 transitman and charge party City of Eugene; '14-'15-'16 asst. city engr. Eugene. April 1917, to date, city engineer, Eugene, Oregon.

FROST, Russel Waterman, 545 East 15th St. N., Portland, Ore. (22 years, born Cheboygan, Mich.) (Jefferson High School Mechanics art course, 4 years. Correspondence course in Electrical Engineering, Night School Electrical Engineering.) September 1915-Feb. 1916, Fobes Supply Co., City; Feb. 1916-Aug. 1916, engineering dept. (surveying) S. P. & S. Ry.; Sept. 1916-Dec. 1916 attended Reed College; Feb. 1917-May 1917 draftsman for Pacific Power and Light Co.; May 1917 to Aug. 29, 1917, salesman for Pacific Power and Light Co.; Sept. 1917 to present, estimator for Pacific Power and Light Co.; endorsed by Wm. S. Turner and Ralph A. Gibson.

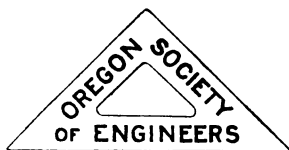
GIDLEY, Albert B., 729 S. 4th St., Marshfield, Ore. (Age 43, born Springwater, Iowa.) (Graduate of Black Hills College with degree of Bachelor of Science. Degree afterwards endorsed by Iowa Wesleyan University. Associate member American Society of Civil Engineers.) 1897 to 1902 associate engineer Homestake Mining Co.; 1902 to 1911

city engineer of Lead, S. Dak.; in addition to city engineer of Lead, carried on a general engineering practice from 1902 to 1911. 1911 to 1913 and 1915 to 1916 city engineer of Marshfield, Oregon. 1913 to 1915 member of contracting firm of Perham & Gidley. May 1916 to date, member of contracting firm of Moon & Gidley.

GOLDMAN, Frederick A., 509 E. 37th N., Portland, Ore. (Age 28, born Rio Bonito, Butte Co., California.) (University of California graduate 1913, College of Mechanics.) Foreman of tests G. E. Co., Schenectady, N. Y., 1913-1914, in charge of D. C. tests; testman of transformers 1915 in Pittsfield, Mass. for G. E. Co.; instructor of electricity, Benson Tech., Portland, 1915-1917. Endorsed by Otto B. Goldman and H. L. Vorse.

GROVES, D. R., Wheeler, Oregon, c-o Port of Nehalem. (Age 30, born La Du, Washington.) (In 1903 entered Columbia Engineering Works as apprentice to the machinist trade, served 6 months. B. S. in electrical engineering, Oregon Agricultural College June 1907; June to Oct. 1904 mechanical engineering for the Port of Portland collecting, marking and segregating patterns; June to Oct. 1905 inspector of fuel supply for the Port of Portland; June to Sept. 1906 draftsman for mechanical department and recorder on river surveys the Port of Portland; June 22, 1907 to Oct. 1912, inspector of dredging department (duties of mechanical draftsman and in charge of river survey work); Oct. 1912 to Jan. 1st, 1917, assistant superintendent of the dredging department of the Port of Portland, mostly in operating and maintenance of plants. Jan. 1917 to May, 1917 mechanical engineer for the Harris Ice Machine Works (machine and plant design.) May 1917 to date chief engineer of the Port of Nehalem, Wheeler, Oregon, having charge of the designs and construction of a hydraulic dredging plant for the commission to be used in the improvement of Nehalem Bay and tributaries. Endorsed by Carl V. Bjornball and O. E. Stanley.

KETCHUM, Verne L., 705 Y. M. C. A., Portland, Ore. (Age 27, born Le Roy, Mich.) (4 years at Michigan Agricultural College, Lansing, Mich.) Received B. S. degree in civil engineering, June 1912.) June 1912 to Feb. 1914, surveyor and draftsman, U. S. Forest Service, Kootenai National Forest, Libby, Mont. Feb. 1914 to Aug. 1914 surveyor, Bell Telephone Co., Livingston, Mont.; Aug. 1914 to Feb. 1916, surveyor and draftsman, U. S. Forest Service, Portland, Ore.; Feb. 1916 to Aug. 1916 construction engineer, Standard Oil Co., Tacoma, Wash.; Aug. 1916 to Feb. 1917, field draftsman on valuation work, O. W. R. R. Co.; Feb. 1917 to July 1917 on engineering work with J. W. Hall, consulting engineer; month of July 1917, draftsman O. W. R. R. Co., Portland, Ore.; August 1917 to date, draftsman, public dock commission, Portland, Ore. Endorsed by Henry F. Blood and Henry M. Morse.



BULLETIN

No. 21

PORTLAND, OREGON

October 16, 1917

THE MAKING OF AN AMERICAN

FROM RAW I. W. W. MATERIAL

Will be demonstrated at the

Y. M. C. A. AUDITORIUM**SATURDAY EVE., OCTOBER 20, 1917**

AT EIGHT O'CLOCK BY

"Three Fingered Jack" Godwin

Mr. Godwin has had wonderful success in converting to American ideals many of the erring bretheren who have heeded the call to "Unite against our common enemy, the employer".

For the benefit of minds trained to think clearly and quickly, Mr. Goodwin has boiled down to an hour's talk his series of lectures usually occupying the evenings of a week.

You'll like Jack, and he'll be glad to see you and tell you of his work.

Boxing and wrestling by Y. M. C. A. athletes will be a feature of the program.

A squad from Vancouver Barracks will give an exhibition of skill in the use of the rifle and bayonet. We are assured that the audience will not be used for "dummies" unless it acts in a manner to deceive these soldiers.

Another number on the program will be setting-up exercises by the entire crowd. (We hope to have a crowd). This should take the kinks out of your superannuated spine and make you feel like "a child again, just for to-night."

There will also be eating "in concert by the congregation", and such drinking as the laws of the state and the rules of the house allow.

On account of the extraordinary character of the meeting, the following rules have been promulgated, and are to be strictly observed:

The regulation I. W. W. uniform will be worn,

Pistols, coats and collars, if worn for protection on the street, will be checked at the door of the hall by the Inspector of Costumes,

Socks, in moderation, may be worn by those accustomed to them.

(Continued on Page 4)

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 E. C. Strayer, Library Committee.
 John W. Cunningham, Public Relations Committee.
 Percy A. Cupper, Legislative Committee.
 Robert E. Cushman, Publicity Committee.

WHERE DO YOU EAT?

Pray pardon this prying into personal matters.

I really don't care a whoop where you eat your breakfast.

If you like a cup of coffee in bed, why, that's all right with me. And if you stand up and eat from the top of the kitchen cabinet, that makes me no difference, either.

Your dinners are likewise, a matter of no concern whatever to yours truly, the Sec.

So far as I am concerned it is all one whether you eat peaceably at home, surrounded by your loving family, hungrily eyeing the last morsel of a four-bit roast that you succeeded in getting for only a dollar; or sit under the bright lights and among the glittering crystal and silver of the town's swellest cafe and gaze soulfully into the eyes of "an old school friend who is just passing through town" and who you have, by adroit use of your native tongue, and your telephone, succeeded in making your wife believe is of the male persuasion.

These things are your own affair—yours and your wife's. Treat them as you will, or as you must.

But answer me these six questions: Where, oh where, do you eat your luncheon?

With whom do you eat?

Wouldn't you like to know where you could meet a dozen or more engineers every noon for a half-hour or so?

Wouldn't you like to feel free to drop in or to stay away, just as pleases your royal fancy: to eat what you please, be it much or little, then scoot for the office when you have finished without the necessity of waiting for the end of the speech?

If not, why not?

Would you patronize such a place—if it suited you—in case reservations can be made for, say, a dozen?

If this appeals to you, talk it over with the Secretary and others Saturday evening or whenever convenient.

The Secretary will talk at any time, though he has a strong prejudice against talking in his sleep, because, you know—well—that is—ahem—yes, yes, yes, that's it. I knew you'd understand.

"SINK WITHOUT LEAVING A TRACE."

Now that it is all over with no less of life, we can look back over the events that came so nearly to ending the career of the Bulletin, with a sort of a grim satisfaction at having, for a time, at least, outwitted the minions of "the Kaiser."

To be sure we have no better proof that we have been attacked than has a sea captain who has seen a torpedo ruffling the surface of the water under his ship's bows. Not the least bit better, but at the same time, perhaps not a bit worse, either.

Suffice it to say that the engagement was brief but interesting.

It was a little before dusk that we first sighted the enemy's periscope. We took a few shots at long range and caused him to submerge. Then we darkened the ship and changed our course in such manner as we thought might throw the "Dutchman" off our trail.

However, we were not much sur-

prised to see him appear above the surface at close range early the following morning, draw our fire by his fiendish tactics, let go a torpedo, and duck. And the way he stayed ducked was a surprise even to one who has hunted the festive mudhen in her native ponds.

We came through the skirmish with only our figurehead and propellor shot away, and limped into port a trifle late.

Today, with figurehead restored and propellor churning the briny deep into a seething foam, we are again on the high seas, camouflaged a bit, you see, and a little more anxious than ever to serve the engineers of Oregon.

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? ? ? ? ?

Although we have some of the best available talent working on the case, the mystery of what became of Capt. McCullough last Saturday evening is yet unsolved.

His lecture would have been much enjoyed by the twenty good men and true who assembled at the East Side Library to listen to his words of wisdom, but for the one fact that the lecturer failed to arrive.

One member, ceasing his labors on an important structure, Chevroleted in from his country estate to learn, if possible, whether or not he is using the most approved methods of construction. The poor chap is still in the agony of doubt.

Others had been to more or less trouble to attend and were naturally disappointed.

We will do our very best to see that nothing of the kind occurs hereafter, and hope that no one will remain at home from future lectures on account of this disappointment.

#### THE SEPTEMBER 20TH MEETING

Seventeen members and seven guests gathered in Room A of the Public Library on the evening of Sept. 20 to get a better understanding of the position of the P. R. L. & P. Co. in the matter of higher fares.

President Vorse had announced his intention of beginning the meeting promptly at eight if he and the Secretary were the only ones present. He might have

done so had not the speaker of the evening, Mr. Franklin T. Griffith, also been there at that time, but it didn't seem quite polite to start him to talking until he had an audience.

Mr. Griffith handled his subject in a very able manner, reeling off statistics as though he enjoyed it and knew what he was talking about, but the discussion later showed that there were some in the audience who would be very slow to acknowledge that they enjoyed paying six cents for a nickle ride.

Mr. Vorse, being almost as busy a man as those members who were not able to be present at all, called Vice President J. P. Newell to the chair and "silently stole away" as our poet has so well said. He probably wanted to get home before the car fare was increased.

Mr. Newell said that there is a general lack of understanding in the minds of the public as to what is meant by the valuation of a public utility, and suggested that engineers might help to enlighten their less fortunate neighbors.

After a vote of thanks to the speaker the meeting adjourned.

Orrin E. Stanley, Secretary.

#### THE MEETING OF SEPTEMBER 27TH

It wasn't much after eight when President Vorse called the meeting to order. He says that the next time we will begin still more promptly. If you attend the lectures on mathematics this winter you may be able to calculate how much time will be saved in the life of an average engineer if all of his society meetings begin on time instead of following the usual Portland custom.

The minutes of the Sept. 20 meeting were read and approved.

Dean Covell of the Engineering School of Oregon Agricultural College was introduced by the President, and outlined in an interesting manner the history of the college.

He was followed by Prof. O. B. Goldman, who tried to inject some mathematical enthusiasm into the minds of his audience. He did well. Time alone will tell how well he succeeded.

Prof. Goldman will also deliver a series of lectures on Thermies. He gave a brief outline of his methods of attack upon both subjects.

Mr. R. R. Clark gave briefly an idea of the work that is to be presented by Prof. McCullough on Structural Engineering.

After a brief discussion of the work proposed, and a vote of thanks to the men from the College for explaining the extension courses to us, the meeting adjourned.

There were twelve members and six guests present.

Orrin E. Stanley, Secretary.

(Continued from Page 1)

And now, as the landlady said to Mr. Shinn, "It's YOU I'm a talkin' to".

Tell your wife--well, as you know her better than I do--tell her whatever may be necessary in order to get the evening to yourself. Wire your friends up the valley that Saturday night is your night for a bath, and that visitors are not welcome. Then skip the bath and come to the meeting. You'll feel more "at home" by doing it thus.

If you have carelessly made any other date for Saturday evening, cancel it. All else can wait. This is the one and only chance to attend a Hogue and Godwin meeting. YOU SIMPLY MUST BE THERE.

**SATURDAY, OCTOBER 20, AT 8 P. M.**  
**AT THE Y. M. C. A. AUDITORIUM**

The Secretary is almost daily in receipt of requests for men. Sometimes these calls are for unusual lines of work, requiring experience in many branches of engineering.

From the meager information furnished in many of the applications for employment, it is difficult to pick the right man, and frequently it is necessary to let a job escape, which some member could fill to the entire satisfaction of himself and the employer.

There are now several high grade civil engineers available and a few positions for chainmen, inspectors and draftsmen.

Tell the Secretary what you want whether it is a man or a job.

Box 973, PORTLAND, OREGON



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

305 BOARD OF TRADE BLDG.

MARSHALL 1632



# BULLETIN

No. 22

PORTLAND, OREGON

November, 1917

## Our Next Meeting

will be addressed by

**Mr. A. L. Barbur**

Commissioner of Public Works

City of Portland.

His subject will be

**"The need for a complete cost-keeping system in City Departments."**

He contends that real efficiency can only be secured when cost of production is accurately known, and his discussion will cover general contract work as well as municipally owned and operated plants as represented by the proposed city paving plant.

This discussion will be of interest to you whether you consider it as an engineer or as a taxpayer.

Thursday evening, Nov. 15, 1917, at eight, Room "A," Central Library.

## ENGINEERS IN THE SERVICE OF OUR COUNTRY

Last month the Bulletin requested its readers to send information regarding the rank and branch of service of those members of the Society who have entered the service of our country.

The response was meager, but we are starting with what we have to build up a roster.

You are urged to send any further information you may have that will help to make the roster complete.

Mail a postal card to the Secretary now.

Lieut. S. J. Benedict.....(?)

Ensign J. H. Keller, U. S. N., U. S. S. Kentucky, c/o Postmaster, New York City, N. Y.

Captain Leonard Lundgren, 116th Engineers, 41st Division, c/o Postmaster, New York City, N. Y.

Captain C. B. McCullough, Engr. Officers Reserve Corps, Vancouver, Wash.

Captain A. E. McKennett.....(?)

(?) Ernest A. Shafer, Engr. Officers Reserve Corps, Vancouver, Wash.

Captain C. A. Willison.....(?)

American Lake, Wash.

## The Best Draftsman in Portland

No matter what kind of a print or original it is the PHOTOSTAT can quickly make you same size, enlarged or reduced copies.

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295 CLAY ST.

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**THE OCTOBER 20TH MEETING**

That was a real live meeting we had at the Y. M. C. A. Saturday evening, October 20th. We were slow in getting thawed out, as engineers are notorious for their frigid, or at least rigid, behavior. But when we got well under way we had a good time.

The Y. M. C. A. staged (or should I say matted?) some clever wrestling and boxing events; and there is nothing like an exhibition of physical prowess to make a bunch of men forget their reserve. And then Jack Godwin told in his inimitable manner what he is doing in the way of making good citizens and soldiers from the raw I. W. W. material. He is an enthusiastic and convincing speaker.

After the talk by Mr. Godwin and some setting-up exercises by the audience, sandwiches and coffee were enjoyed by all.

It is such meetings as this, which by entire absence of technical features and by an abundance of human interest, get men to feeling a fellowship for each other that will do more for the welfare of our society than anything else.

We are steeped in technical data; we were brought up on it and work with it day after day. Occasionally our human side craves expression.

We hope that Mr. Hogue will be successful in arranging more meetings like this one for the future.

**DRAINAGE ENGINEERS WANTED**

The Willamette valley is unusually fertile, but much of it needs drainage to bring it to the highest state of productivity. For the period of the war, at least, this should be done.

But the preliminary investigation for the formation of drainage districts calls for an outlay of capital on the part of a few, which is only recoverable in the event of the actual organization of the district and the completion of the work.

There is no doubt that this fact keeps many desirable projects from being initiated.

The suggestion has been made that members of the Oregon Society of Engineers, who are familiar with the drainage laws of the state, co-operate with the farmers to the extent of giving their time in the preliminary stages of the formation of drainage districts. Necessary expenses would be paid by the men interested in the district.

Engineers undertaking this work should familiarize themselves with the procedure required by law. They are, of course, competent to advise on all engineering connected with the project.

The Society wishes to be able to state to the representatives of the Federal Food Administration Bureau and of the Oregon Agricultural College, who are speaking throughout the state that it has a list of men competent and willing to give advice on drainage matters, and who are anxious, as a patriotic duty, to give the necessary time.

This seems to be an opportunity for engineers, who for any one of a hundred reasons have not been able to bear arms against our enemy, to engage in the work of increasing the food supply, without a great sacrifice on their part.

No obligation attaches to the filing of your name with the Society for this work. If you are too busy when called upon to give the time, simply say so and some one else will be notified.

And if you don't get the engineering work on the project after its organization, we can't help it.

Please send in your names at once.

WANTED the theory of Thermics at the East  
side Library.

The men who attended the lecture  
claim to have gotten great good from  
it, and are enthusiastic about the  
coming lectures of the course.

The Secretary made a special trip  
to the wilds of southern Washington  
and there found Capt. C. B. McCul-  
lough attired in beautiful blue over-  
alls, some blisters and a smile. (He  
had been learning the noble art of  
digging trenches.)

The Captain made arrangements to  
be released from quarters on Satur-  
day evening and delivered the first  
lecture of his series on "Structural  
Mechanics" to a small but very intel-  
lectual audience.

On account of the high cost of  
everything in general, and of printing  
mathematical formulae in particular,  
the Society has been forced to dis-  
continue printing the O. A. C. Exten-  
sion Lectures in the Journal.

Students in these courses will be  
furnished with mimeograph copies of  
the lectures, but members of the So-  
ciety not registered in the Extension  
work will not hereafter have the bene-  
fit of the printed lectures.

If you are interested in this work,  
or think you will be, send three dol-  
lars to Henry M. Morse, Treasurer,  
607 Corbett Bldg., and you will get  
the lectures each month.

You had better attend to this at  
once. You'll be glad, later, that you  
registered.

### PERSONALS

Mr. S. B. Phillips has gone to Bos-  
ton to accept an engagement with the  
Stone & Webster Corporation. The  
Society loses a very efficient Commit-  
tee Chairman by his removal from  
Portland.

Mr. John Dubuis and Mr. J. C. Sharp  
are in Grants Pass on irrigation work.

Mr. W. P. Hardesty is engaged in  
locating a logging road for the DuBois  
Lumber Co.

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## OREGON SOCIETY OF ENGINEERS BULLETIN

made its way by its merits. No one wishes to make its way by any other means. There is no argument the retention of our present system of weights and measures that is an argument against our decimal term of currency. No reason supports our decimal system of currency that does not support a decimal system of measures. This handicap we must throw off, not necessarily at once, but by adopting some reasonable method as an evolution out of darkness toward light—out of foolishness and reason.”—The Metric News.

### APPLICATIONS FOR MEMBERSHIP

The following are abstracts from applications for membership in the Oregon Society of Engineers now on file in the secretary's office.

No objections to the admission of these applicants are received within thirty days from the publication of this notice, the Executive Board will ballot on the names.

ORRIN E. STANLEY, Secretary.

### APPLICANTS FOR ACTIVE MEMBERSHIP

**ARNES, R. W.**, 36 Union Sta. (Age 28, Iron Edgewater, Colo.) (University of Colorado. Cornell University B. S. '09.)  
**JOHN, Levelman** and Transmittan, Colo. N. W. Ry. Location and Const., Boulder, Colo. 1905, Engr. Foss Land Co., Eastern, Colo. 1907, Transmittan and Asst. Engr. Antero Irrigation Project, Park, Colo.; 1908, Exploratory Reconnaissance, United Fruit Co., Brazil;  
**JOHN, Topographer**, Levelman and Comptroller, Pathfinder and Shoshone Projects, Wyo.; 1909, Transmittan Moffatt Co., Construction Colorado; 1910, Levelman H. R. Tunnels, N. Y.; 1910, Draftsman and Chief Draftsman, Hampson and Fielding, Denver; Engineering Office and City Engineer Cody, Wyo., 12-1917; Draftsman and Asst. Engr. P. Co., Portland, Oregon; Govt. contract survey work, mine surveying, and laying and various construction and preliminary work in subordinate positions covering period 1902-1910.

**PERMAN, L. Raymond**, 787 Taggart, Portland, Oregon. (Age 36, born Osula, Iowa.) (Attended Extension Class Steam Engineering" O. A. C. 1916-17; served apprenticeship at boilermaking).  
 Nov. 11th to date Chief Eng. Police Bureau; Feb. 15th, 1912 to June 28th, 1913, Assistant Eng. Hotel Multnomah; Apr. 1, 1911, to Feb. 15th, 1912, Assistant

Eng. at Hotel Perkins; 8 years previous boilermaking and general shop work. Endorsed by Otto B. Goldman and T. A. H. Teeter.

**MONROE, F. L.**, 915 E. Everett St., Portland, Oregon. (Age 29, born Pullman, Wash.) (Portland High School and private study in connection with actual engineering experience for the last 10 years.) Apr. 1907 to Nov. 1907, Rodman and Instrumentman P. R. & N. Co. R. R. Location; Jan. 1908 to 1909, Rodman and Instrument-maintenance, O.-W. R. & N. Co.; 1909-1910 Instrumentman and Computer R. R. Construction O.-W. R. & N. Co. (Deschutes R. R. Co.); 1910-17 Instrumentman-Draftsman & Asst. Eng. S. P. Co. Endorsed by H. A. Hampton and L. F. Schuele.

**MOSS, F. Dudley**, 260 Hazelfern Place, Portland, Oregon. (Age 42, born Pittsfield, Ill.) (Two years University of Washington.) 1898-1900, General Drafting for Piece Barnes & Co., Seattle, Wash.; 1900-1902, Chief Eng. for Tacoma Shipbuilding Co., Tacoma, Wash.; 1902-1904, Chief Draftsman for Dewey-Strong & Co., San Francisco, Cal.; 1905-1908, Draftsman and Resident Engineer for N. P. Ry. Co.; 1908-1909, Pacific Portland Cement Co., San Francisco, 1909-1911, Resident Engineer for Northern Pacific Ry. Co.; 1911-1913, City Eng. at Seaside, Ore.; 1913-1917, Instructor in Mechanical Drawing, Benson Polytechnic School.

**WHEELER, Omar A.**, Madison Park Apt. Portland, Oregon. (Age 52, born Portland, Oregon.) 1883-86 Steam Engineer for father; 1888-94, Superintendent of Saw Mill for Father & Bros. (Inc.); 1900-02, Steam Engineer at Pacific Coast Bldg. Co., Macaroni Fact.; Asst. Eng. at 12th and Davis 1902-05 (considerable shop practice here); 1905-07, Mill Supt. Spaulding Log. Co.; 1909-11, Chief Eng. Chamber of Commerce Bldg.; 1911-15, Eng. for Neustadter Bros.; 1915 to date Designing & Building Automatic Cuff Machine for W. A. M. Co.; Endorsed by Otto B. Goldman and T. A. H. Teeter.

### APPLICATION FOR JUNIOR MEMBERSHIP

**HANSEN, J.**, Route A, Box 78, Portland, Oregon. (Age 33, born Copenhagen, Denmark.) (Technical School, Copenhagen, Denmark, two years. Y. M. C. A. Night School Denver, Colo., Nov. 1907-June 1909.) Oct. 1907 to Aug. 1910, Arch. for L. A. Desjardins, Denver, Colo.; Aug. 1910 to June 1911, Arch. for Cuff & Diggs, Sacramento, Cal.; June 1911 to Sept. 1911, Arch. for Dudley, Seattle, Wash.; Sept. 1911 to Oct. 24, 1917, The Pac. Tel. & Tel. Co., Portland, Ore. Dock Commission at present. Endorsed by Henry F. Blood and J. V. Gogwiler.



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**PHIL EASTERDAY**

**305 BOARD OF TRADE BLDG.**

MARSHALL 1632



## THE NEXT MEETING

of the Oregon Society of Engineers  
will be devoted to a discussion of Mr. Cupper's  
article

**"Irrigation and Our National Food Supply"**  
appearing elsewhere in this issue of the Bulletin.

The discussion will be led by

**MR. J. P. NEWELL, MR. O. LAURGAARD AND MR. J. W. CUNNINGHAM,**  
who will be followed by any one else having  
worth-while ideas along this or similar lines.

This meeting will be at the Central Library  
Building (Room A)

**THURSDAY EVENING, DECEMBER 20, AT EIGHT O'CLOCK**

### THE EXTENSION LECTURES.

There will be no College Extension Lectures during December.

The third lecture on Thermics will be delivered at the East Side Library at eight o'clock Saturday evening, January 5, 1918.

The mimeograph copies of this lecture are being sent out to those who have registered for the course, and should be in your hands by the time you get the Bulletin. If they are not—klick.

The lectures on Structural Engineering will be at the same place on the second Saturday of each month beginning with January, and the Engineering Mathematics lectures will be held on the evenings of the fourth Saturday of the month until the courses are completed.

We greatly regret not being able to continue printing the lectures in the Journal. As that seemed to be impossible we have done the next best thing by getting them out in mimeograph form.

### OPPORTUNITIES FOR SERVICE.

The National Government is now requiring the services of more technical men than ever before.

Red tape is being cut into short lengths and less must be unwound to secure a Civil Service position than in the past.

The attention of eligibles is called to the notices of openings with the Government printed in this issue of the Bulletin, and all interested are urged to watch the daily press for announcements of coming examinations, full information about which can be obtained at the Post Office.

Many engineers are doing their bit towards helping the Government in the present crisis, and are at the same time getting into more congenial lines of work and better paying positions than those they occupied before the opening of hostilities.

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 Robert E. Cushman, Publicity Committee.

**FOR WOMEN ONLY.**

Was it King Solomon, or was it B. Franklin who first breathed those words of wisdom, "A word to the wives is sufficient"?

On second thought, it must have been Solomon, for we are informed that he had many more wives than Franklin, and therefore should have been better posted on such matters than B. F.

However, so far as I am informed, Solomon never held a job as secretary of an engineering society. That fact, if fact it be, but adds to our already high opinion of his great reputation for wisdom. Of course I do not wish to be misunderstood to infer that there is anything radically wrong with such a job, or entirely out of joint with a man who accepts it, except that if before election he had already attained a reputation for wisdom, he would stand a mighty good chance of losing it before he had served a year as "minute man" for such a society.

The preceding remarks are mainly introductory. We will assume that you have read thus far, and are wondering what it all may be about.

It is this:

For two long and weary years through the Bulletin I have talked to the men—the members of the Oregon Society of Engineers—as though they were the heads of their households.

If I now admit either that I knew better all the time, or that I have just discovered that such is not the case, I am by either statement convicted of a certain lack of wisdom.

Perhaps we had better not say anything further along that line. We seem to be getting into deep water.

The fact remains, however, that during these years, the wives have been gleaning words of cheer from this little sheet as a sort of recreation after the arduous study required to master the profound thoughts contained in the Ladies' Home Journal and its sister magazines.

Not long ago the Bulletin offered some suggestions to the men as to methods which might be followed in getting an "evening off" to attend a smoker at the Y. M. C. A. In doing so, it made a serious tactical error. The effect of publishing the plan of campaign was to put the wives on their guard, and when the evening of the smoker arrived, nothing that the poor downtrodden men could say would move their superior officers to relent. Each spent a happy evening under his own vine and fig tree.

So, now, wife of an engineer, though these words be not laden with the wisdom attributed to the ancient king of the many wives, hereinbefore mentioned, and though they be not dripping with honey, they are the straight goods.

Engineers, as you doubtless discovered many years ago, are not gregarious animals. They work and hunt alone or in very small groups.

Engineers are notoriously underpaid when you consider the time, the money, and the effort spent in preparation for their work.

In these statements you have the cause and the effect.

Recognizing these facts, and seeking a remedy, engineers, and some of their wives believe, or profess to believe that a more general "mixing" in social events will help to correct both of these unfortunate conditions, and so they frequent parties of one sort and another, or stick around smoky lodge rooms for several nights of the week. Then when there is a meeting of the engineering society they are either too

tired to attend, or have a previous engagement.

Of course, we freely admit that your engineer has nothing to learn through listening to what the speakers as announced on the program may have to say, and that it is a shame that he was not asked to address the meeting instead of the (here insert whatever epithet is in current use in your family) speaker who has hoodwinked the program committee into believing that he is competent to instruct full grown men on that subject.

Does not your engineer owe a little something to his profession? Would it not be well for him to attend these meetings and join in the general discussion following the principal speakers?

By doing this, he can show that he is well versed in this subject, and can discharge some of the debt which he owes to the great men who have helped to build the science by which he earns your daily bread.

If he knows all that there is to know about a given subject, he is not playing fair with the rest of the crowd if he keeps all this knowledge to himself.

If he has yet more to learn, he is not playing fair with you and the kiddies by missing these opportunities to gather information which will help him to increase his earning power.

Think that over for a while.

Then read what follows.

How much has your engineer increased his income through his association with fellow lodge members who were not engineers?

How much in increased earnings can be credited to the acquaintances formed at the various parties he has attended in the past six or seven years?

Then, against these items place increased earnings, new clients, and better positions which have come to him through engineering friends.

How does the balance look to you?

Understand, now, that I am not even insinuating that your engineer is an average man. I know as well as you do that he is so far above the average that he seems in a separate class—except that his ability seems to not have been properly recognized by those in position to grant him increased compensation. And it is with this thought

in mind that I am asking your help to place him where he belongs—among the leaders of his profession.

Without your help I can do little; with your help, much; with your help, and that of the other members of the society he can be placed much nearer the coveted goal than by any of us working alone.

Until a man gets close to the hundred-dollar-a-day class, most of his work comes to him through other engineers. If this is so, does it not seem plain that the more engineers, and the higher type of engineers he meets, the better will be his chance of getting to the front? And is there a better place for forming these acquaintances than at the meetings of the local engineering society?

At these meetings he can exchange ideas with such men, and in this way advertise his accomplishments, his powers of persuasion, and his general efficiency in handling the things that are to be done by him.

These local engineering meetings, luncheons, smokers and dinners bring together men whose interests are common, and even though they might allow an entire year to pass without mentioning anything of a professional nature at these meetings, the occasional contact with minds trained to think along the same or similar lines outside of his office associations, will certainly be beneficial to all concerned.

I know that it is quite a sacrifice on your part to allow your engineer to spend away from home an additional night each month but it looks to me as though the experiment might be worth trying for a year. How about it?

If he doesn't care to go; if he would rather sit down after dinner and read the sporting news or something equally important, you should conduct an investigation to determine whether he has ceased all effort to improve his professional education and standing; and if you find that such is the case, it were well for you to grasp him firmly by the ear and lead him down to the Library next Thursday evening, and there turn him over to the other members of his Society for such treatment as they see fit to administer.

Keep this up for a year, and "take stock" again.

When you have seen the gain, and noted the small cost of effort and time, renew the resolution for still another year.

A word to the wives is sufficient.

### THE MODEST ENGINEER.

I have repeatedly had occasion to request the members of our Society to give some information concerning themselves, and have the same number of times had to get that information from other sources.

This line of action might be expected from second story men or any other members of the clan which lives by its wits and garners its harvest in the dark hours of the day, but why an engineer—a member of the most honest and honorable profession—should seemingly be to such pains to cover up his tracks when leaving town, is beyond the power of my intellect to grasp.

Many of our members have entered the service of our country as officers or enlisted men, and I have sent out an "S. O. S." with the hope that the Bulletin might contain some information about these men which would be of interest to the other members of the Society.

The list printed in the November Bulletin was very incomplete and perhaps inaccurate as well. One additional name has been received in the month. Please help with this work. Send to the Secretary any information about any engineer from this part of the country who is in the army or navy. Every little helps.

The list as it stands now is as follows:

Lieut. S. J. Benedict.  
Ensign J. H. Keller.  
Capt. Leonard Lundgren.  
Capt. C. B. McCullough.  
Capt. A. E. McKennett.  
Capt. W. D. Peaslee.  
Capt. C. A. Willison.

### IRRIGATION AND OUR NATIONAL FOOD SUPPLY.

By Percy A. Cupper, Assistant State Engineer, Salem, Oregon.

War is the present business of the United States, and all the Nation's re-

sources in men, money and supplies should be marshalled in a supreme effort to bring the struggle to a successful conclusion. Men are selected by draft; money is raised as needed; but for our food stuffs we must wait upon the slowly recurring seasons, with their attendant uncertainties.

The unusually dry season in Oregon and elsewhere, resulting in the partial or total failure of dry farm crops, brings forcefully to mind that irrigation on a sufficiently extensive scale will insure the Nation's food supply.

The world's need of American-grown foodstuffs will not cease in 1918, 1919, nor perhaps in 1920, and during this period of excessive demand and unusually high prices the irrigation farmer has an opportunity never before offered to make the irrigated farm a success. In other words, irrigation is more nearly a national necessity, and conditions more nearly guarantee success to the individual irrigator, than ever before.

The Federal Government has wisely provided for the construction of roads in co-operation with the various states, and conditions are now such that equal wisdom would be shown in providing for the irrigation of additional land and the production of crops thereon.

While the sum which could be expended to advantage on irrigation at this time is a matter of conjecture, it is believed that \$75,000,000 allotted by the Government for this purpose would be conservative. One-third of this amount could well be allotted for the completion of U. S. Reclamation Service projects, one-third in co-operation with the various states, and one-third in the irrigation and cultivation of irrigated land which would not otherwise be in crop. Projects which might be classified as U. S. Reclamation Service projects would probably include some irrigation districts and Carey Act projects upon which certain co-operation could be secured, so that no hard and fast line could be drawn.

It is obvious that the states would not be in a position to promptly put up dollar for dollar with the Federal Government, on account of inadequate constitutional and statutory provisions. Therefore the co-operation, in order to be effective, must include the accept-

ance by the Federal Government of irrigation district bonds and Carey Act liens. For example, the bonds of a feasible irrigation district project could be deposited with the Federal Government as security for the funds advanced for construction, the bonds drawing the same rate of interest the Government is required to pay. The same is true of Carey Act contracts and liens. It would of course be necessary to reduce all projects to the basis of the irrigation district. That is to say, the co-operation could be only between land owners or prospective irrigators and the Government. No Carey Act contracting company or private irrigation company could intervene. In order to insure the hearty co-operation of the state and its continued interest in the success of the undertaking, it should be required to directly contribute, at least to the extent of the administrative expense of carrying the plans into effect within the state. No money should be available for expenditure in any state except for the completion of projects undertaken after the state has had an opportunity to furnish funds, excepting on a dollar for dollar basis in cash or the deposit of state bonds with the government. In all cases the land, water, and works must be held for the cost of reclamation. This is not a new plan. It has been advocated before; in fact, the Oregon irrigation district law, like many others, makes provision for financing in this manner.

It is not enough that the irrigation works be constructed, but each acre for which the works are constructed should be made to produce a crop. Within the limits of practicability, every acre of land subject to irrigation in the United States should be commandeered, if necessary, and sown to wheat, making proper adjustment with the owner after taking into account the improvements to the land.

The question naturally arises: Could this be economically done? Would it not involve waste? Viewed from the conservative standpoint of ante-war conditions, it probably would not be considered economical. However, we must not overlook the high price of wheat, nor that the problem today is production, not purchase. Can it be accomplished in time to be of assistance to the Nation during the war? The reply is another question: How long will the war last? It is not safe to rely upon predictions as to when the war will end. Who can say whether next season will bring forth rain or drouth, plenty or scarcity, food or famine?

Seventy-five million dollars is a large sum of money; not so large, however, as it seemed before this war, which has taught us to think in billions. It is in fact less than the amount now expended by our nation every four days for war expenses. If this money, expended in irrigation, will not do as much good for our cause as it would expended in some other way, it should not be used for this purpose. However, it must be borne in mind that irrigation is not only a war time necessity, but will continue in peace times as a great national asset, the cost of which will be repaid to the Government.

It would seem that all organizations and individuals interested in irrigation might well concentrate their efforts in the enactment of national legislation providing for irrigation development on a scale that will assist in meeting the needs of the Nation for a greater food supply.

#### A MANAGER NEEDED

Our old friend P. T. B. cut for himself a good sized niche in the Hall of Fame when he made the world-famous remark anent the American people

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liking to be humbugged. They still like it as well as in the old times when P. T. travelled the country with his unparalleled aggregation of men and beasts, and if it were not for the Hooverizing habit which is now gripping them as nothing has gripped for years, they would still be indulging in the luxury of spending their money for things they are sure they will not get, and just as certain that they do not want, even if they do get them.

An instance of this sort came to the notice of the writer not long ago when he was scrambling over the hills not many hundred miles from anywhere close at hand.

Being a man who earns his daily nine-cent loaf by using his knowledge of sewers and sewerage to the benefit of the public, anything that he may happen upon which looks as though it might add to his store of knowledge on the subject of sanitation of towns is of interest to him.

Now, in the course of the ramble mentioned above, a manhole cover was seen among the dense brush that clothed the hillside; and near it another, and still another. This was getting interesting. Evidently human beings (or at least sewer builders) had been here before, and had been here to some purpose.

Manhole rose above manhole on the precipitous mountain side, like cast-iron treads on a giant staircase, until at last, as a crowning effort in the building of sewers in waste places was found a patent flush-tank, busily flushing  $H_2O+X$  down these man-made enclosed cascades to the placid river hundreds of feet below.

Being neither a prophet nor the son of a prophet, the writer does not wish to make a positive statement in this case; but being a man of mature years, of trained powers of observation, and of Yankee parentage, he is willing to hazard a guess that we will all be a long time dead before the sanitary facilities in use by our esteemed ancestor, Adam, will have entirely given way to the more modern kind, over the entire area covered by this wonderful sewer system.

Now, this kind of work leads one to believe that the people need advisers to tell them what not to buy, as well

as what they really need. These advisers should be thoroughly trained along technical lines, and should not be paid a percentage of what the work costs, nor of what they save to the community from the proposed cost as estimated by those who are trying to sell them what they have no use for.

And all of this brings us to conclude more forcibly than before, that each municipality, no matter how small if it is large enough to have any kind of self government, should have as chief executive a General Manager. This Manager should receive a salary that will put him out of the reach of the ordinary temptations, such as commissions on materials purchased, and he should be a person of such integrity that no matter how small his official salary, he would hold to what he believed to be right.

The average run of engineers are such men, and it is with deep regret that we have to record that the man who sold this high and lofty sewer system to an unsuspecting municipality is a member of a national engineering society.

He does not, however, wear the O. S. E. badge of the Square Deal.

## RESOLUTIONS TO BE DISCUSSED THURSDAY, DEC. 20, 1917

To H. L. Vorse,  
President, Oregon Society of Engineers  
Portland, Oregon.

Your Legislative Committee, to which was referred the communication entitled "Irrigation and Our National Food Supply," has given the same its careful consideration and reports thereon as follows:

1. The movement to increase our national food supply through the irrigation of and production of crops on a larger area, is worthy of the support of this Society.

2. The Society should endorse the movement by the adoption of suitable resolutions, copies of which should be sent to engineering societies of other western states, to the Portland Chamber of Commerce, and the Chamber of Commerce of other cities in Oregon located in irrigated sections and to our

representatives in Congress and to the food administration officials.

3. The resolution should be in substantially the following form:

WHEREAS, the production of additional food stuffs with which to feed our soldiers and render greater assistance to our allies is of great national importance, and

WHEREAS, the completion of partially constructed irrigation projects, and the construction of such other projects as may be speedily completed, and the production of crops on land in all such projects as well as upon those projects already completed would greatly aid in the solution of this problem, and

WHEREAS, expenditures made on the construction of irrigation works as a war-time necessity will create enduring improvements, the usefulness of which will not cease with the end of the war, and

WHEREAS, it is believed that the Government should provide ways and means of producing crops on all lands for which water is available for its irrigation even to the extent of assuming control thereof in case such land would not otherwise be made to produce,

NOW, THEREFORE, BE IT RESOLVED, that Congress should make a liberal appropriation for the construction of irrigation projects of the character herein enumerated and for the production of crops on all irrigated land, and

BE IT FURTHER RESOLVED that the plan outlined in the attached communication entitled "Irrigation and Our National Food Supply" is in general approved.

(Signed)

PERCY A. CUPPER,  
OTTO B. GOLDMAN,  
CHESTER J. HOGUE,  
JOHN DUBUIS,  
ALBERT G. JOHNSON,  
Legislative Committee.

#### APPLICATIONS FOR MEMBERSHIP

The following abstracts from applications for membership in the Oregon Society of Engineers are presented to the membership for suggestions as to the proper classification, and for additional information regarding the applicants which the Executive Board and the Membership Committee should have in order to judge wisely on the question of admitting the applicants.

Should no objections to the admission of any of the applicants be received before the second week in January, 1913, these names will be balloted upon by the Executive Board.

ORRIN E. STANLEY, Secretary.

**BOYLE, I. E., 386 3rd St., Portland, Oregon.** (Age 43, born Boon Co., Ind.) (Eureka Kas. Public School and High School from 1879 to 1890, Puget Sound University, Tacoma, one year, no degree. Five years on Northern Pacific R. R. as apprentice, 1896-1901.) Transitman, Resident Engr. and Locating Eng. on construction of S. P. & S. R. R. 1911 to 1913, Locating Eng. on Willamette Valley Southern.

**FACER, JOHN F. G., 8 E. Sumner St., Portland, Ore.** (Born Carbondale, Colorado) (High School El Paso, Texas, 1907). July-Sept., 1908, Rodman Mexican Central Ry.; Sept., 1908-Feb., 1911, Rodman, Topographer and Levelman, Mexican Ry.; Feb., 1911-Dec., 1912, Asst. Res. Eng. and Resident Eng. National Rys. of Mexico; March-April, 1913, Rodman, Pacific Electric Ry., Los Angeles, Cal.; Mar., 1914-Sept., 1916, Rodman-Instrumentman and Draftsman, Southern Pacific R. R.-M. of W. Dept., Portland, Ore.; May, 1913-Feb., 1914, Estimate Man and Concrete Inspector, North Western Pacific R. R., San Francisco, Cal.; Sept., 1916-Feb., 1917, Instrumentman, Oregon-Washington Railroad & Navigation Co. (Revaluation Dept.), Portland, Ore.; March, 1917-May, 1917, Timekeeper, Southern Pacific R. R., Portland, Ore.; May and June, 1917, Structural Insp., City of Portland, Sewer Dept.; July-December, 1917, Locating Eng., U. S. Dept. of Interior under Mr. G. E. Goodwin. Endorsed by John W. Cunningham and Orrin E. Stanley.

**RICE, ERNEST G., 1201 E. Sherman St., Portland, Oregon.** (Born Selkirk, Manitoba, Canada. Age 32.) (Oregon State College, Corvallis, Oregon; B. S. Min. Engr., 1908-1912.) Three mos. 1910, O.-W. R. & N. Co., Portland, Rodman; 3 mos. 1911, O.-W. R. & N. Co., Portland, Rodman; 6 mos. 1912, S. P.-P. E. & E., Portland, Rodman, Instrumentman; 16 mos. 1913-14, Am. Type Fds. Co., San Francisco, Machinery Foreman; 5 mos. 1915, Consolidated Contract Co., Portland, Asst. Engr. and timekeeper; May, 1916-Present, National Tank & Pipe Co., Portland, Asst. Engr. Endorsed by John W. Cunningham and R. E. Cushman.

**ROSS, W. C., Box 479, Baker, Oregon.** (Age 37, born Brookfield, Colchester County, Nova Scotia.) 1899-1902, Street Car Shops and Motorman, Woonsocket Street Railway Co., Woonsocket, Rhode Island; 1902-1904, Mine Electrician, North West Improvement Co., Roslyn, Wash.; 1904-1908, Chief Mining Electrician, Seattle Electric Co., Mines at Renton, Wash.; 1908-1910, on motor and plant installation, Alaska Treadwell Gold Mining Co., Treadwell, Alaska; 1910-1915, Construction Foreman for Eastern Oregon Light & Power Co., Baker, Oregon; 1915 to date, Supt. Baker Municipal Lighting. Endorsed by H. L. Vorse and L. R. Stockman.

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**UNITED STATES CIVIL SERVICE EXAMINATION — JUNIOR ENGINEER (MALE)**

The United States Civil Service Commission announces an open competitive examination for junior engineer, for men only. Vacancies in the Geological Survey at an entrance salary of \$1,200 a year with expenses when on field duty, and in positions requiring similar qualifications at this or higher or lower salaries, will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion. It is estimated that from 10 to 30 appointments will be made in the near future.

Appointees will generally be assigned to the work of gaging streams and studying the water resources of the United States. The work will consist of field investigations and the writing and review of the resulting reports. The field of investigation may be in any part of the United States.

Appointees will be eligible for promotion to higher grades after they have demonstrated to the satisfaction of the Department and the Commission their fitness for such promotion.

Competitors will not be required to report for examination at any place.

Graduation from the civil engineering course of a college or university of recognized standing, or the fact that the applicant is a senior in such course and submits proof of actual graduation within three months from the date of making oath to his application, is a prerequisite for consideration for this position.

Statements as to education and experience are accepted subject to verification.

Each applicant must submit an explicit statement of the course or courses pursued, together with a statement of the ratings received in each subject, such statement to be signed by the proper officer of the college or university attended, and also a statement from the dean or professor in charge of the department of civil engineering, as to the qualifications of the applicant.

Applicants must have reached their twentieth but not their thirty-fifth birthday on the date of making oath to the application.

Applicants must submit with their applications their photographs taken within two years.

Applicants will be admitted to this examination regardless of their residence and domicile; but those desiring permanent appointment to the apportioned service in Washington, D. C., must have been actually domiciled in the State or Territory in which they reside for at least one year previous to the date of making oath to the application, and must have the county officer's certificate in the application form executed.

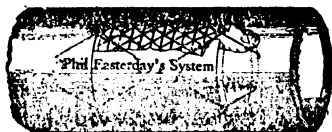
Until further notice and on account of the urgent needs of the service, applications will be received at any time. Papers will be rated promptly and certification made as the needs of the service require.

This examination is open to all male citizens of the United States who meet the requirements.

Issued October 13, 1917.

**IS YOUR ADDRESS CORRECT AS PRINTED IN THE ABOVE SPACE?**

If it is not, you will help the postal clerks and will get your Society announcements much more promptly if you will send the Secretary a card **RIGHT NOW** correcting the error.



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

**PHIL EASTERDAY**

**305 BOARD OF TRADE BLDG.**

**MARSHALL 1632**

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RB

Engineering

FEB 11 1918



# BULLETIN

No. 24

PORTLAND, OREGON

January, 1918

"BETTER IS A DINNER OF 'HERB'S' WHERE LOVE IS THAN A STALLED OX AND  
HATRED THEREWITH".

## ANNUAL MEETING

### OREGON SOCIETY OF ENGINEERS

AT THE UNIVERSITY CLUB, MONDAY, FEB. 4, 1918, 6 P. M.

A REAL DOLLAR DINNER FOR WHICH YOU PAY BUT FIFTY CENTS

After the dinner the President will announce the result of the ballot in the election of officers—Some needed constitutional revisions, and matters of policy will be discussed. SEND YOUR RESERVATION TO MR. HOGUE AT ONCE.

Informal

Four bits

#### ENGINEERING SOCIETY SERVICE

An engineering society can best thrive by service.

It must first serve its members, for unless a member feels that he is getting some return for the money spent for dues, he will soon withdraw his support.

It must serve the public, for unless it does this, the public will not know of its existence. And what is the use of belonging to a society which is unknown to one's neighbors and associates?

This seems at first glance to be a simple little program, and one which any society should have no trouble in following. Yet there are difficulties to be overcome, even in so simple a matter as giving a society's members what they want. The first obstacle is that the members do not know what they want. They have joined the society to see what they are to get for their money, and when they either get it or fail to get it, they begin to grow dissatisfied, neglect to come to the meetings and finally—oh, greatest of calamities—they ignore the treasurer's requests for their annual con-

tribution, until, after a time, these requests no longer come.

As secretary of the Oregon Society of Engineers for the past five years, I have repeatedly tried to discover what the members thought they were buying when they paid their initiation fees; what they thought they expected in return for the annual dues, and what, in general, they thought an engineering society should do for its members and itself.

Here are some of the very few ideas that have filtered into the secretary's office in all that time.

"A club room."

"A free dinner once a month."

"A technical publication equalling or excelling the Journal of the Franklin Institute."

"A library."

"A free employment service."

Some of these ideas have been developed to some extent. Some of them have not proven satisfactory at the first attempt, and might not prove so at any time; but on the other hand, they might be made immensely popular and profitable if undertaken by the right men at the right time.

All of them will bear free discussion. Let us hear from you.

**OFFICERS**

H. L. Vorse, President.  
 J. C. Stevens, 1st Vice President.  
 Phil H. Dater, 2d Vice President.  
 J. P. Newell, 3d Vice President.  
 H. M. Morse, Treasurer.  
 O. E. Stanley, Secretary.

**DIRECTORS**

A. E. McKennett John R. Penland  
 Wm. S. Turner D. W. Taylor  
 James R. Thompson L. F. Harza  
 F. A. Naramore O. Laurgaard  
 Jno. W. Cunningham

**CHAIRMEN OF STANDING****COMMITTEES**

Harold A. Rands, Nominating Committee.  
 S. B. Phillips, Membership Committee.  
 Chester J. Hogue, Program Committee.  
 R. E. Kremers, Educational Committee.  
 Albert J. Witchel, By-Laws Committee.  
 E. C. Strayer, Library Committee.  
 John W. Cunningham, Public Relations Committee.  
 Percy A. Cupper, Legislative Committee.  
 Robert E. Cushman, Publicity Committee.

**MR. HOGUE EXPLAINS**

As a preliminary to assuming control of the Bulletin for the coming year, Mr. Hogue modestly disclaims any intention of initiating ouster proceedings against the retiring secretary.

He has asked that the following be printed in the Bulletin in order that the members may get his point of view:

"In accepting the suggestion of the Executive Committee that my name be placed on the ballot for the position of Secretary, it was my understanding that Mr. Stanley had accepted the nomination for President and would not be available as Secretary. I desire to make it clear that I had not intended to be a candidate in opposition to Mr. Stanley; that I believe that Mr. Stanley would be of far more value to the Society as Secretary than I, and to remind the members of the Society who had sent in their ballots before receiving the information that Mr. Stanley would again accept the Secretaryship, that it is their privilege to withdraw their ballots sent in and submit new ones, if this is done before the 31st of January."

Yours very truly,

C. J. HOGUE,

Asst. Secretary for Oregon,  
 West Coast Lumbermen's Assn.

**EMPLOYMENT OFFICE AFFAIRS**

It goes a little under the skin to acknowledge that you do not know something that you should have known for a long time. And when you have been working along a certain line for a good while, and then find out that another fellow has done the same thing that you have been trying to do, and has done it a heap better than you have—well, you just want to hunt up a retired spot and quietly kick yourself in it. Now, don't you?

Nearly six years ago our Society undertook to register the engineers of the state for the purpose of getting them into the work in which they would be of the greatest value to themselves and to the community. And for six years we have been doing our darnedest.

And now comes Mr. Geo. C. Mason with a list of men so complete, and with information about each man in such detail, that it is quite a marvel beside the meager information which our Society has on file. But neither his list nor ours is being used anywhere near to its full possibility.

Can you think of any way in which the funds of the Society can be spent to better advantage than in the placing of engineers in good positions promptly when the positions are open?

What do you think of a scheme for registering all the engineers of the state—civil, electrical, mechanical, chemical or any other kind that you can think of—in one list; this list to be kept up to date by filing the new information about each man, and by taking out the cards of men who for any reason are no longer available?

Don't you think that such a list would be mighty helpful to the engineers? Wouldn't they be likely in this way to hear of the jobs for which they are the best fitted?

Wouldn't the employers like to get hold of such a list instead of spending days calling up all their friends to ask if they know where there is a man having such and such qualifications.

With the other technical societies of Portland to help, we should be able to finance such an undertaking indefinitely, to the lasting benefit of the state.

Why not try it?

**A SOCIETY HOME**

There is in this town a little club with a membership not so large as that of our Society, and with dues of fifty cents a month, which maintains a club-room and thrives.

Yes, many of the men are married, too; and many of them are technical men.

Yet these married men, these technical men, these business men, find time to enjoy each other's company for a few hours a week or a few hours a month, just as it happens.

At Seattle the engineers have a club headquarters of three rooms, including a kitchen. And some of them actually eat there every day that they are in town.

It is real cosy and homelike.

If you are ever that far from Portland in a northerly direction you might look in on them and see what you think of the idea at close range, and talk with the members and see what they think of it after trying it out for a year or more.

In Dayton, Ohio, the engineers have a house of their own, but then, of course, their dues are five times what we pay here. Maybe the engineers in Dayton receive five times the salaries that we do. Who knows?

Oh, yes, we had a club room at one time, and it nearly put us in the poor house. But there were other entangling alliances, such as the Journal of the Associated Engineering Societies, which absorbed nearly half the annual dues; and, besides, we paid more for the club room privileges than we would need to now, and had more room than we could use, and we didn't use what room we had because the rooms were cold and were not easily accessible, and were above two stories of saloon with no elevator. You can see for yourself that it was a mighty poor place for an engineer's club.

The state is dry now.

Why not try it again?

**RETROSPECTIVE**

Our Society will soon have completed seven years of existence.

For some, they have been seven years of work, hard work, but hopeful work.

There are among our number certain ones who have high ideals for the Profession of Engineering, and have faith that some time in the not far distant future, these engineers will awaken to their privileges and take their true place in the scheme of the body politic.

These men have worked and are still working to so shape public opinion, and to so mould the minds of the engineers themselves that these minds, trained in scientific thinking, may occupy a broader field than at present; and that the engineers may be a better paid, a more satisfied, and a happier group of men.

It has been a hard struggle, and if there is anything to the ancient belief in cycles of seven years, we are billed for greater success in the coming seven, or for hopeless defeat.

**CANADIAN ENGINEERS NOT OVERPAID**

Speaking of the poor pay received by engineers, Mr. Fraser S. Keith, Secretary of the Canadian Society of Engineers, said:

"We have talked in the past a great deal about inadequate rewards and we may continue to talk, but nothing will be accomplished until we secure a higher standard of reward, and we shall find the accomplishment so easy that the wonder will be why we had not thought of doing so sooner. We are today exactly in the position of the man staying out all night on his own doorstep because he thought he could not get in, only to find out in the morning that he had the key in his pocket."

Let us get hold of the key and walk into the positions of adequate reward.

**The ONLY commercial machine in Portland making photographic copies on paper, direct, is at**

**THE BRICKLEYS 295 CLAY ST.**

**Marshall 5588**

Our Specialty is making copies of blue prints or original drawings actual size or reduced

**The BRICKLEYS**

295 CLAY STREET

Phone Marshall 5588

### HIGHWAY BRIDGE ENGINEER WANTED

The United States Civil Service commission is advertising for a Highway Bridge Engineer, and Junior Highway Bridge Engineer applicants.

The men must be not over 40 and 30 years respectively and the salaries offered are up to \$2100.00 for the higher position and to \$1600.00 for the Junior Engineer.

The examination will be held on Feb. 13.

Information may be obtained from the Secretary, or from the Civil Service office at the post office.

With its usual good judgment the Journal of the Engineers' Club of Baltimore culls two articles from a recent number of the Bulletin.

Our admiration for this Journal is constantly increasing.

### APPLICATIONS FOR MEMBERSHIP

Following are abstracts from applications for membership in the Oregon Society of Engineers now on file in the Secretary's office.

If no objection to the admission of these applicants is received within twenty days from the publication of this notice, the Executive Board will ballot upon the names.

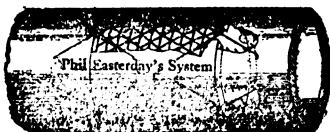
Orrin E. Stanley, Secretary.

**EHLE, CHESTER G.**, Room 211 City Hall, Portland, Oregon. (Age 32, born Marshalltown, Iowa.) (South Dakota School of Mines, Class 1911.) 1909, with county surveyor Pennington Co., S. D., S. of student assistant in Geology S. D. S. of M.; 1911-12, draftsman Pac. Tel. & Tel. Co., Portland, Ore.; 1912 to date, draftsman, Water Bureau, City of Portland. Endorsed by J. H. Garrow and W. H. Adamson.

**HEUPERMAN, LAMBERTUS FREDER-  
IK**, P. O. Box 110, Marshfield, Oregon.

(Age 35, born Amsterdam, Holland.) (July 1896 June 1898, apprentice map engraver, coast survey maps, Holland, Feb. 1907-Feb. 1910, articulated pupil to A. Driscoll, civil engineer and dominion land surveyor, Edmonton, Alberta, Can. Feb. 1910, passed examination and received commission as dominion land surveyor from Canadian Government. Jan. 1911, member Alberta Land Surveyors' Association.) Aug. 1905-Sep. 1906, draftsman, Driscoll & Knight, civil engineers and dominion land surveyors, Edmonton; Sep. 1906-Jan. 1907, with Paradis and Thorold, Municipal and Contracting Engineers, Calgary, Alberta, in charge of construction of sewerage system at Red Deer, Alberta. 1907-1914 in charge of townsite, topographical and government land surveys, and miscellaneous engineering work. Feb. 1907-March 1910, with Driscoll & Knight, principal assistant. March 1910-March 1911, manager Driscoll & Knight, Calgary branch. March 1911-Sep. 1911, member firm L. F. & F. J. Heuperman, Civil Engineers and Dominion Land Surveyors, Calgary. Sep. 1911-Sep. 1912 member firm Patrick & Heuperman, Civil Engineers and Dominion Land Surveyors, Calgary. Oct. 1912-Jan. 1914 with Dr. O. A. Turney, C. E., Phoenix, Arizona. Sep. 1914-May 1916, assistant to City Engineer, Marshfield, Ore. May 1916-Jan. 1917 Acting City Engineer, Marshfield, Ore. Jan. 1917 to date, City Engineer, Marshfield, Ore. Endorsed by D. L. Buckingham and Benjamin Ostbird.

**WENTWORTH, E. F.**, 309 Pine St., Portland, Oregon. (Age 48, born Canton, Mass.) (High School, Mass. Agricultural College, 1885-86; Engineering Course in American Correspondence School. Special Course in Westinghouse Instruction Car 1898.) 1893-1904 locomotive engineer; 1904-1905, air brake inspector and instructor on N. Y. N. H. & H. 1913-1914, general air brake inspector and instructor O. W. R. & N. 1905 to present time with exception of time shown in service of the O. W. R. & N. Co., representative and mechanical inspector for The New York Air Brake Co. Endorsed by John Dickson and A. J. Witchel.



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

**PHIL EASTERDAY**

305 BOARD OF TRADE BLDG.

MARSHALL 1632

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Engineering

UNIVERSITY OF ILLINOIS LIBRARY

FEB 25 1918



# BULLETIN

No. 25

PORTLAND, OREGON

February, 1918

## MEETING

Room "A" Central Library  
Thursday, February 21, '18

EIGHT P. M.

### "JUST AMONG OURSELVES"

A continuation of the business of the annual meeting and some new business.

Among the topics for discussion will be:

**SOCIETY ROOMS.**

**EMPLOYMENT BUREAU.**

**AMENDMENTS TO CONSTITUTION.**

**WHAT SHALL WE DO WITH OUR LIBRARY?**

And whatever you have on your mind for the good of Engineers in general.

Everybody come and make this a real, live meeting.

University of Ill Libr  
Urbana Ill

**OFFICERS**

O. E. Stanley, President.  
 P. H. Dater, 1st Vice President.  
 J. P. Newell, 2nd Vice President.  
 J. R. Thompson, 3d Vice President.  
 C. J. Hogue, Secretary.  
 H. M. Morse, Treasurer.

**DIRECTORS**

|                  |               |
|------------------|---------------|
| F. A. Naramore   | L. F. Harza   |
| J. R. Penland    | O. Laurgaard  |
| D. W. Taylor     | H. F. Blood   |
| J. W. Cunningham | F. I. Fuller  |
|                  | J. C. Stevens |

**COMMITTEE CHAIRMEN**

J. R. Thompson, Membership.  
 D. W. Taylor, By-Laws.  
 H. F. Blood, Library.  
 P. H. Dater, Program.  
 H. A. Rands, Legislative.  
 F. A. Naramore, Public Relations.  
 R. E. Cushman, Publicity.  
 J. W. Cunningham, Publication.  
 R. E. Kremers, Educational.  
 W. S. Turner, Nominating.

**AN APPEAL FOR UNITED ACTION**

By Orrin E. Stanley

An inaugural address is supposed to be delivered to a long-suffering assembly, too polite to get up and leave, and frequently too bored to pay any attention to what is being said.

The members of the Oregon Society of Engineers are a wise bunch. The majority of them side-stepped the possibility of having to listen to such a speech by remaining at home on the night of the annual meeting. The minority was mercifully spared the affliction of being compelled to listen to a speech. It had suffered sufficiently by watching the new officers counted in.

Some of the things that the President-elect might have said are set forth below for the information of those who have the time and inclination to read.

We are beginning the eighth year of existence as an engineering society. Some of us think that we have learned a few things about such an organization—its aims, its field of usefulness, and its limitations.

Our membership has been limited, principally by our disinclination to work for new members.

It is not an exaggeration to say that there are in Portland and its immediate vicinity, today, from one hundred

to two hundred engineers, not now members of our organization, who would gladly join, and work hard in the upbuilding of a feeling of fraternity among engineers of the Oregon Country.

Many of these men have not united with us simply because they have not been asked; and as you know that engineers are a bashful bunch, not many of them will take the trouble to inquire where they may secure an application blank. They are also men who by virtue of their training, are hard to get out of a rut, so they do not take the trouble to secure the necessary blank when they know where it may be secured.

Some others have been asked to become members of our organization, but have hesitated, wondering whether such a move on their part would be of equal benefit or pleasure to them as the same money spent for gasoline or tickets to the movies.

Here are some of the things that we can offer.

An employment department which is helping good men to get good positions, and is helping employers to locate the men they need for work that must be done.

Thousands of engineers have paid higher annual fees than ours to employment agencies which have done less for them than we have done for our members in the past year, and they have had no other service from the agencies than occasional bulletins of vacancies which "we regret to report have been filled before receiving yours of the —th."

The services of this department are yours for the asking, whether you want an assistant or a job.

The monthly meetings are a source of inspiration for those who attend in the right spirit. They can do you little good if you do not come.

The publications—well, you have seen what they are. They speak for themselves.

And the College Extension Lectures are proving valuable and interesting to those who have the energy and ambition to take advantage of them. Of course they shoot 'way above the heads of some of us, but what of that?

Do we not gain strength and encouragement through associating with these brainy ones? Certainly we do.

If none of these things is considered worth while, should not the feeling of comradeship generated by association with the best engineers in the state—of feeling that you are one of them, having an equal voice in matters of engineering interest, and in leading public sentiment towards a greater respect for engineers and their work, be sufficient reason for becoming and remaining a member of the Oregon Society of Engineers?

Much has been done in the past years along these lines, but there is much more to be done during the coming year, and each member, of whatever grade, is expected to do his share and the share of a comrade who is fighting for him in France.

The first and easiest thing for each to do is to get one new member.

The next, is to bring this new member to one or more of the monthly meetings.

Then advertise engineers, and particularly the Oregon Society of Engineers.

Buy a badge and wear it.

Tell folks what engineers are doing in the war. Tell them what engineers are doing in Portland to help win the war, and tell what engineers are doing in Portland and throughout the state and country in other lines.

You will find that your friends are interested in these things, and you will gain new notions of your own importance in the community, through the telling. This will do you good; for as a rule, engineers are entirely too meek and lowly, and too backward about tooting their own horns.

We should have permanent headquarters; not necessarily large and luxurious apartments, but some place that we can call "home." We need a place for depositing our increasing stock of literature; a place where two or three can meet and feel that they are not intruding; where they can smoke if they like, and talk above a whisper without glancing over their shoulders to see if they are disturbing someone else.

The dues of only sixty new mem-

bers will pay for such a place for a year. Sixty more will furnish the room nicely, and the income from the other hundred and twenty new members that you are going to get can be used to help handle the employment work in a more efficient manner.

This is a year when individual effort will count and when individual effort must be made.

The officers and committeemen will do their best, as they have done in the past. They can, perhaps, keep the Society from losing ground, but real success must come through work—through the hard work of the membership at large.

You are the Society.

You must help the officers to serve you.

A united effort can make this year count for more for the engineers of Oregon than any that has passed.

Do your bit.

## ANNUAL MEETING OF THE OREGON SOCIETY OF ENGINEERS

Monday Evening, February 4, 1918

At six o'clock

At the University Club

Nearly fifty members and guests assembled in the dining room of the University Club for the Annual Dinner at the beginning of the eighth year of the Society.

President Vorse called the meeting to order, and introduced Lieut. Braunig of the National Army, who spoke about the formation of a regiment of Electrical Engineers, and asked the help of the Oregon Society of Engineers in getting eligible applicants in and near Portland.

After the dinner, the Annual Meeting was called to order at 8:30, and the following business transacted:

Mr. Morse read his report as treasurer, showing expenditures of \$1,741.35 and receipts of \$1,063.9, or a net loss during the year, of \$677.36.

Upon motion of Mr. Colby, seconded and carried, the detail items of the report were omitted.

Upon motion, the report was adopted, with a vote of thanks to Mr. Morse, for his work as treasurer.

Mr. Hogue made a report as chairman of the Program Committee. He suggested that the chairman of the Program Committee be a member of the Executive Board, and submitted an amendment to the Constitution to the effect that the First Vice-President be, by virtue of his office, the chairman of the Program Committee.

It was moved by Mr. Johnson, and seconded by Mr. Fisher, that the report be adopted. Carried.

Moved by Mr. Cunningham, seconded and carried, that a vote of thanks be extended to Mr. Hogue, chairman of the Program Committee, for his excellent work. Carried.

Mr. Cushman, chairman of the Publicity Committee, submitted his report of the work done during the year.

It was moved by Mr. Laurgaard, seconded and carried, that the report be adopted, and a vote of thanks be extended to Mr. Cushman.

Mr. Strayer, chairman of the Library Committee, reported that his committee had accomplished very little during the year, and made some valuable suggestions for the work of that committee in the future.

The tellers, having completed their work, the President declared Mr. O. E. Stanley to be elected President; Mr. J. R. Thompson, Third Vice-President; Mr. Chester J. Hogue, Secretary; Mr. Henry M. Morse, Treasurer; Mr. Henry Blood, Mr. J. C. Stevens and Mr. F. I. Fuller, Directors for a three-year term; and Messrs. W. S. Turner, Geo. S. Edmondstone, R. E. Kremers, R. C. Bonser, Chas. McGonigle, R. S. Dulin, J. V. Gongwer and J. A. Rockwood, as members of the Nominating Committee.

It was moved by Mr. Rands, seconded by Mr. Henshaw, that a vote of thanks be extended to the tellers.

Carried.

Upon motion, duly made and seconded, the report of Mr. Strayer, chairman of the Library Committee, was adopted, and a vote of thanks extended to Mr. Strayer for his work.

The Secretary read the report of Mr. Kremers, chairman of the Educational Committee. Upon motion, it was accepted.

The Secretary's report was then

read, and, upon motion, was adopted.

Mr. Hogue's amendment, making the First Vice-President, chairman of the Program Committee, was again read and, after many motions, which were reconsidered or lost, Mr. Laurgaard moved that the order of the Executive Board adopted at the meeting of Feb. 11th, 1911, regarding having the chairmen of the four principal committees appointed from members of the Executive Committee, be followed for the coming year. Seconded by Mr. Fisher and carried.

An amendment to the Constitution was offered by Mr. Laurgaard, as follows:

Article 11—under title of "Committees"—strike out Sections 1, 2 and 3, and change Section 4 to read "Sec. 1."

In Article 13—under title "Election of Officers," strike out all of Section 1, and substitute in lieu thereof, Section 1, as follows:

The Executive Board shall cause its Secretary to prepare a primary ballot—indicating thereon the offices to be filled for the ensuing term, and leaving a blank to be filled by the voter, opposite each office—which will constitute the primary ballot for nomination. These ballots, with return envelope, shall be mailed to each active member, whose address is known, on or before the first day of December, and must be returned for canvass, before January 1st, following.

The canvass for votes for nominees shall be made at an open meeting of the Executive Board on or before the second Saturday in January. The Board shall have the power to decide on nominees in case of ties or in case of any nominee being ineligible to hold office, and shall prepare a list of at least two candidates to fill each vacancy occurring through the expiring term of the following officers: President, Vice-President, Secretary, Treasurer and Directors.

Except in the case of a tie, or ineligibility to hold office, the two persons receiving the highest number of votes in the primary ballot, shall be considered duly nominated for the office to be filled.

An amendment to the Constitution was offered by Mr. Stanley as follows:

Art. 11, Sec. 3. The duty of the Nominating Committee shall be to annually prepare a list of at least one candidate to fill each vacancy occurring through the expiring term of the following officers: President, Vice-Presidents, Secretary, Treasurer, Directors and Nominating Committee.

Art. 13, Sec. 1. On or before the first day of January of each year, the Nominating Committee shall convene and place in nomination at least one candidate for each vacancy occurring through the expiring term of the elective officers.

A motion to adjourn, by Mr. Keyser, was lost.

Mr. Laurgaard moved that the consensus of opinion of this meeting be obtained regarding the proposed amendment, and if favorable, the amendment be submitted to the By-Laws Committee for favorable attention, and be referred back to the Executive Board for letter ballot.

Mr. Johnson proposed an amendment to the Constitution, as follows:

On or before January 1 of each year candidates may be placed in nomination for the various elective offices by petition. The form of the petition shall be substantially as follows:

**Nominating Petition for the Office of** .....

We, the undersigned, members in good standing of the Oregon Society of Engineers, join in a petition for the nomination of ..... for the office of .....

Signed .....  
.....

The signatures of at least thirty members in good standing must be secured in order to render such petition valid. No member may sign more nominating petitions than there are offices to be filled. Such petitions must be transmitted on or before January 1st of each year to the Secretary, who, if he shall find the petition in proper form and valid, shall certify that the petition is valid upon such petition and then forward it to the chairman of the Nominating Committee. It shall then be the duty of the Nominating Committee to certify the name of the person nominated by such

nominating petition to the Executive Board for placement upon the ballot.

Mr. Cunningham moved that Mr. Johnson submit his proposed amendment to this amendment, to the By-Laws Committee for consideration, but without recommendations from the Society. Carried.

Mr. Hogue moved that Mr. Stanley's amendment be also submitted to the By-Laws Committee for submission to the Society, by letter ballot. Carried.

A motion to reconsider this was declared to be out of order.

Upon motion, the meeting adjourned at 11:50 p. m.

Orrin E. Stanley, Secretary.

### THE PRESIDENT'S ANNUAL ADDRESS

The year just past has been a trying one for the society. The distracting influence of the war has been manifest on all sides; it has taken much of our best working material temporarily at least from us; it has left those remaining in a more or less disturbed frame of mind and these obstacles have served to hinder though not effectively impede the onward progress of the inward spirit of the society. It has afforded an opportunity to take stock of our resources and the better to prepare for the future. We have at least analyzed our motives and intents and put into motion those agencies which make for a bigger and better freedom of useful purpose; we have initiated a self-help movement that is new of its kind and which bids fair to become popular far beyond the expectations of its immediate patrons. We here refer to the splendid educational program of Professor Otto B. Goldman of Oregon Agricultural College.

It is one thing to contemplate the war with its kaleidoscopic effects and particularly its after-effects, but it is quite as important to remember that we are here today and many will be here tomorrow and that we and they must live on and the net returns of that living will be in proportion to our efforts today for today and never the morrow is the time for doing things. Accordingly we have begun to prepare

the ground work of a more perfect organization—a sympathetic whole.

Mark you well that the coming or going of offices is incidental; that the seed of freedom is in the air today and that it has fallen into our soil. Engineers are not freemen today. They are hampered most by their own narrow visions. It is no uncommon thing to find an organization like ours restrained from within from giving expression to great public questions which it more than any other organization is competent to discuss. Right there is where the outward influence percolates the interstices of our fellowship. Were this fellowship real and genuine these influences could not work their way into our midst; there would be no place for a selfish unit to live and thrive by using the society when it is convenient to do so and yet casting it aside when it ceases to be individually useful. More than a third of our men stand for a close fraternal organization. It is inevitable that their will shall prevail.

We have made progress with our publications. While we apologize for them we are nevertheless proud of their small beginnings. They stand for a definite purpose and have attracted noticeable attention to the society. Several papers from each of our publications have been republished by engineering journals of national standing.

Forty-one men once enrolled with this society are today serving our country in foreign lands. These brave fearless souls have gone forth to do and to die if need be. We rejoice in the knowledge that our dean, John F. Stevens, is checkmating the enemy's move in eastern Russia. For all of these and their families we record a thought of tender regard and stand ready to follow with word or deed to the end that they may be strengthened to perform the special duty to which

each has been called. And we further pledge ourselves to be ever mindful of the several regulatory measures of our national administration and to aid in every way their complete fulfillment. As a partial means to this end this society cooperated with the national organizations in the enrollment of every organized and unorganized technically trained man within the state and these enrolled and classified names have been placed at the disposal of the government at Washington. This work was pursued under name of the Oregon Patriotic Service League.

As your retiring presiding officer the pleasant duty devolves upon me to pay a tribute of kindly recognition to those of you who have labored ceaselessly in the best interest of the society and it matters not whether that involves adverse criticism of my personal direction so long as you sought only to be constructive.

H. L. VORSE.

#### REPORT OF SECRETARY FOR YEAR 1917

The Secretary has had more than a hundred requests for technical help during the past year. Men have been sent to nearly all these places, but a few were of such a nature that suitable men could not be found.

There are now about 40 applications on file for various positions, but this does not mean that there are 40 idle engineers. Some of them are simply trying to improve their condition.

Ten numbers of the Bulletin have been issued, running from 4 to 12 pages each. The need for a medium in which the Secretary may informally discuss Society matters with the members, is the principal excuse for the Bulletin. It threatened, for a time, to get onto a self-supporting basis, but had a relapse, and the advertisements

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**THE BRICKLEYS 295 CLAY ST**

**Marshall 5588**

now pay but about one-half the expense.

No year book was issued, but it is hoped that one may be printed early this year, and succeeding years, so that the names of officers and committees may be of use to the members.

Forty-six new members, of various grades, have been added during the year.

A few men have left the state and resigned. Some have been dropped for non-payment of dues, and a few have been reinstated after a lapse of a year or more.

Several men have threatened to join but as yet are being held at bay. They may break in at any time, however.

The wave of prosperity which is sweeping over Portland should serve to increase the membership if it were not for the fact that the men are now too busy to attend the meetings, and therefore think it is not worth while joining the Society.

We need a few good salesmen to go among the engineers with a straight line of selling talk and show these men the error of their ways.

The coming year should be the most prosperous in the history of the Society.

Let us all hope that it will, and work in a determined manner to that end.

ORRIN E. STANLEY,  
Secretary.

#### REPORT OF PROGRAM COMMITTEE FOR 1917

The Chairman of the Program Committee has this year shared with the Secretary the vain endeavor to find subjects which would induce the members to come out to the meetings.

During last spring it was suggested that more frequent meetings would bring out the membership. Meetings, therefore, were held almost every week, for some time. This fall, with the commencement of the engineering lectures, it was felt that only monthly meetings would be advisable, as other meetings might detract from the attendance at the lectures.

The best attended meetings seemed to be when pictures were announced. This may have been because the pub-

lic was admitted and the attendance may have been largely non-members.

A very good attendance saw the exhibition of Mr. W. L. Finley's bird and animal film, at the meeting of the Society in January. These are very rare films and probably few who see them realize the time and patience which it required to obtain them.

A smoker in the fall drew out a fairly good attendance but there were many delicious sandwiches and much good coffee which remained after the meeting had been dismissed.

It would seem that to follow out the ideals and traditions of a technical society, largely so, at least, technical subjects should be presented at these meetings. It may be that engineering is specialized in so many branches these days, only those interested in a particular subject announced, attend the meeting at which the subject is presented. The fact remains that at many of the least attended meetings the interest seemed to be greatest and the most lively discussions were brought forth.

If I have any criticism of the Executive Board to offer, it is that they check up too little on the activities of the Program Committee and make too few suggestions or criticisms. It would seem that the work of the Program Committee is of very great importance to the Society and should be given the closest scrutiny and attention by the Executive Board, to assure that it is presenting subjects of the greatest possible interest to the Society, and that it will follow out the policies of the Board of Directors.

If I have any suggestion to make it is that a member of the Executive Board be made chairman of the Program Committee, in order to bring the two bodies as closely together as possible. It might even be well to designate a particular member of the Executive Board, possibly the first Vice President, as, by virtue of his office, chairman of the Program Committee. In this way the member of the Board who is to hold this office would be selected by the Nominating Committee with particular reference to his fitness for the work.

Respectfully submitted,  
C. J. HOGUE,

### MEMBERSHIP COMMITTEE

The following is a general report of the activities of the Membership Committee, on which I had the privilege of serving under the chairmanship of Mr. S. B. Phillips.

The committee inaugurated a systematic and active campaign for new members. Local engineers not yet listed on our blue book were called upon in person by individual members of our committee, and in addition, a list of names of desirable candidates located throughout the state was compiled and divided among our members for personal solicitation by correspondence.

The following is a sample of the text of numerous letters sent to out of town engineers who it was thought were desirable material for membership:

Dear Sir:

The Oregon Society of Engineers is endeavoring by co-operation to advance the science and practice of engineering and allied professions. By the organization of the engineers of various classes and the architects in a single body, we hope to be able to not only advance the science but to raise and maintain the standards of the profession among the members. The organization is active also in organizing engineering opinion in matters of public interest.

Do not overlook the fact that your co-operation with the others will prove of the greatest assistance. In addition to the regular meetings and discussions in which the greatest interest has been aroused of late, the Society publishes a journal known as The Journal of the Oregon Society of Engineers. The articles published in this journal cover a variety of subjects and every number contains subjects of interest both to the general public and to the engineering profession at the present date.

The writer is enclosing an application blank for membership, trusting that you will fill out the same and return it at an early date to the writer.

Yours truly,

We trust that the Society will live up to its ideals and that new members will find that our Society has real

purposes of marked advantage to the profession.

In closing I wish to pay special tribute to Mr. Phillips, former chairman of this committee. Mr. Phillips accepted an offer from Stone & Webster several months ago and we understand is employed on their huge arsenal contract now being executed in France. While chairman of our committee he displayed the deepest interest in building up the Society, and was extremely faithful in the discharge of his duties.

Submitted for the committee by  
R. E. CUSHMAN.

### REPORT OF EDUCATIONAL COMMITTEE

The committee held its first meeting July 27th, 1917, at which meeting the three members of the committee, viz: Messrs. R. E. Kremers, Chairman; L. T. Merwin and R. R. Clark, Professors O. B. Goldman and C. B. McCollough of the Oregon Agricultural College and Mr. H. L. Vorse, President of the Society, were present.

This meeting was held to discuss a proposed series of lectures to be given in Portland by the Extension Department of the Oregon Agricultural College in certain engineering subjects, which would be of interest to the members of the Society, and to other engineers.

It was decided at this meeting that as the Extension Department of the college was able to present them, it would be desirable from the standpoint of all concerned, that three courses be given, one in Structural Engineering by Professor McCullough and courses in Thermodynamics and Engineering Mathematics by Professor Goldman. The matter was therefore submitted to the authorities of the college at Corvallis, and a working agreement entered into in which the college undertook to give a course in each of the three subjects, one lecture

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to be given each month, beginning with October and ending with May, excepting the month of December.

The Society was to provide lecture hall lights, etc., and was to print the lectures in advance in the Journal of the Society.

The Society was to collect \$3.00 from each person registering in the courses and turn the same over to the college.

The college was to allow credits leading to the Professional Degree in Engineering to each enrolled member satisfactorily completing the work of the course.

The first lecture of the series was given by Professor Goldman on Oct. 6th on the subject of Thermodynamics.

Up to the present time about 30 persons have enrolled in each course.

While the average attendance at the lectures has been considerably less than this, those attending regularly have shown great interest in the work, and it is believed that a direct personal benefit has already resulted, all of the courses being prepared with a view toward practical engineering results.

Particularly noteworthy is the course in Thermodynamics, or Thermics. In this Professor Goldman has presented original theories on the heat properties of vapors and gases, which seem destined to supersede theories, which have been in use for the past half century, and mark a distinct advance in the science of Thermodynamics. Unfortunately, the suspension of the publication of the Monthly Journal has necessitated the issuing of the lectures in mimeograph form and the publicity it was hoped would result to the Society is partly lost, but it is hoped that some of the more important lectures may be published later in the proceedings of the Society.

R. E. KREMERS,

Chairman Educational Committee.

## CONSTITUTIONAL AMENDMENTS

Below are suggestions for changes in our Constitution which may or may not be advisable.

Look them over, and when you have made up your mind concerning them,

come to the meeting and give the Society the benefit of your wisdom.

If you are unable to determine what should be done, come and find what others think of them and be in position to vote intelligently should the occasion arise.

## ARTICLE XIV.

Ten or more members residing more than 15 miles from Portland may form themselves into a Branch Society and receive a charter from the parent Society. When the President and Secretary of such Branch shall have certified to the Executive Board that the Branch has organized by the acceptance of the charter and the election of officers, the Treasurer of this Society shall remit to the Treasurer of the Branch 40 per cent of the dues already received or due from its members for the remaining portion of the fiscal year, and thereafter shall so remit 40 per cent of all dues paid by members of such Branch.

If any Branch Society shall fail to hold at least six meetings annually, its charter may be revoked by the Executive Board.

## RECOMMENDATION FOR ADDITION TO CONSTITUTION

It is recommended by the By-Laws Committee that the constitution be amended to provide for the organization of Local Chapters of the Society as follows:

## ARTICLE XIV. LOCAL CHAPTERS.

Section 1. The Executive Board may, at its discretion, authorize Local Chapters of the Society and define the territory thereof.

Section 2. A Local Chapter shall consist of at least 5 members; if its membership falls below 5 in number, the Executive Board may annul the Local Chapter.

Section 3. Only one Local Chapter shall be authorized in one locality or district.

Section 4. Only members of the Society shall be members of its Local Chapters.

Section 5. All members of the Society residing within the territory of a Local Chapter shall be eligible for membership in such Local Chapter. But any such person failing within three months, after due invitation, to become a member of such Local Chapter, shall thereafter be admitted to its membership and privileges only on such conditions as said Local Chapter shall determine. Any member of the Society whose place of business and residence are outside of the territory of any Local Chapter, or who is already a member of the Local Chapter within whose territory he has his place of business or residence, is eligible to become a member of any Local Chapter of the Society, under such regulations as the individual Local Chapter may enact, and shall be designated, when elected, as a "Non-Resident Member" of such latter Local Chapter.

Section 6. The officers of a Local Chapter shall be elected, after the formation of the Local Chapter has been duly authorized, at a meeting of the members of the Society within the territory of said Local Chapter, called by the sponsors of the Local Chapter, notice of said meeting and its objects being given to said members at least thirty days in advance. Officers of Local Chapters shall be elected for a term not longer than one year.

Section 7. The officers of a Local Chapter shall be a Chairman, Vice Chairman, Secretary, Treasurer (or Secretary-Treasurer), and such others as the Local Chapter may desire.

Section 8. The Executive Board may, at its discretion, contribute from its fund towards the necessary running expenses of each Local Chapter. Requests for such appropriation shall be signed by the Chairman, Secretary and Treasurer of the Chapter, but the Society shall not be responsible for the debts of any Local Chapter.

Section 9. The Board reserves the right to cancel a Local Chapter, or readjust its territory.

Section 10. Papers presented at Local Chapters and discussions thereon, if reported, shall be the property of the Society. They shall be submitted to the Publication Committee and published in the journal of the Society if approved. Such papers shall not be published elsewhere in extenso without permission of the Publication Committee. The reading of a paper before a Local Chapter shall not carry with it the right of publication in the journal of the Society.

Section 11. Each Local Chapter shall transmit promptly to the Secretary of the Society announcements of its proposed meetings, abstracts of its proceedings and other similar items, which announcements, etc., may be published in the Bulletin of the Society under the head of "Chapter Notices."

Section 12. Neither the author of a paper presented to a Local Chapter nor the Local Chapter shall have the right to reprint a paper or publish it in advance of the meeting without obtaining the permission of the Publication Committee of the Society, which may refuse, or determine the details of such permission. Nothing herein shall forbid the abstracting of a paper by the press after its presentation before a Local Chapter.

Section 13. The Society shall print advance copies of papers offered to Local Chapters, in order to facilitate discussion thereon, provided that such papers are approved for such advance publication by the Chairman or Secretary of the Local Chapter and by the Publication Committee of the Society.

Section 14. Papers read before a Local Chapter may also be offered for reading or discussion at general meetings of the Society, and shall be given equal standing with the other papers on the program of said meeting, when approved by the Publication Committee.

Section 15. The By-Laws and regula-

tions of Local Chapters shall be subject to the approval of the Executive Board.

Section 16. No action shall be taken by a Chapter which shall contravene the Constitution and By-Laws of this Society.

The By-Laws Committee recommend that changes in and additions to Article XI of the Constitution be made as follows:

Section 4. By-Laws Committee, Library Committee, Publicity Committee shall each consist of three members who shall hold office for a term of one year.

Section 5. Legislative Committee, Program Committee shall each consist of five members who shall hold office for a term of one year.

Section 6. Public Relations Committee shall consist of seven members who shall hold office for a term of one year.

Section 7. Membership Committee shall consist of nine members who shall hold office for a term of one year.

Section 8. At the request of the Executive Board, the President shall nominate the Chairman of each of the above committees, and it shall be the duty of the Chairman to select the additional members to serve with him.

Section 9. Publication Committee. The Publication Committee shall consist of seven members appointed by the President, with the approval of the Executive Board. It shall be the duty of the Publication Committee to edit the articles for publication and to otherwise supervise the issuing of the official periodicals of the Society. They may also appoint Associate Editors. The term of office of the Publication Committee and its Associate Editors shall be for one year.

Section 10. A majority of any committee shall constitute a quorum for the transaction of business.

Recommendation is made as a result of opinions and suggestions offered at meeting of the officers of the Society held at University Club April 14th, 1917, that the Civil Service Committee be dispensed with, the Public Relations Committee to assume the work of both.

It is recommended by By-Laws Committee that the word "Plurality" be substituted for the word "Majority" in Section 7, Article 13, of Constitution.

## PUBLICITY

In compliance with your request of the 8th inst., I beg to submit the following report for the Publicity Committee. The report is in substance the same as my verbal report at the annual meeting:

Notices of meetings, and of business transacted, were sent to the Portland papers. In addition, notices of some of the more important legislative action and of important meetings were

sent to the local papers in Astoria, Corvallis, Eugene, Oregon City, Pendleton and Salem.

The following national publications were also furnished with publicity notices from time to time. The Pacific Builder and Engineer, the Engineering News Record, Western Engineering, and Engineering and Contracting.

In writing to the national publications the possibility of co-operation between the Society and the publication was suggested. In behalf of the Society, the suggestion was made that we would willingly notify the membership of any articles published of special local interest, provided the same were brought to our attention; the national publication in return to extend the courtesy of its publicity columns. The Pacific Builder and Engineer and the Engineering News-Record made prompt reply to news items furnished, and expressed considerable interest in the affairs of our local organization.

Submitted for the Publicity Committee of 1917 by

R. E. CUSHMAN,  
Chairman.

**Oregon Society of Engineers**  
**Report of Treasurer for fiscal year ending**  
**January 31, 1918**

**FUNDS ON HAND FEBRUARY 1, 1917**

|                                    |                  |
|------------------------------------|------------------|
| In bank—                           |                  |
| Checking account .....             | \$ 378.37        |
| Savings account .....              | 530.62           |
| Not deposited .....                | 79.75            |
| Expense fund in Secy's hands ..... | 40.00            |
|                                    | <b>\$1028.74</b> |

**RECEIPTS**

|                                                    |                  |
|----------------------------------------------------|------------------|
| Back dues—                                         |                  |
| Active members .....                               | \$ 70.75         |
| Associate members .....                            | 7.50             |
| Junior members .....                               | 8.75             |
| Current dues—                                      |                  |
| Active members .....                               | 699.90           |
| Associate members .....                            | 46.25            |
| Junior members .....                               | 32.25            |
| Student members .....                              | 4.00             |
| Advance dues—                                      |                  |
| Active members .....                               | 45.25            |
| Junior members .....                               | 5.95             |
| Total dues received .....                          | <b>\$ 920.60</b> |
| From sale of badges .....                          | 13.50            |
| From sale of Journals .....                        | 41.00            |
| From Advs. in Bulletin .....                       | 15.00            |
| From other societies for notices of meetings ..... | 2.56             |

|                                         |       |
|-----------------------------------------|-------|
| From O. A. C. Lecture Course fees ..... | 57.00 |
| From interest .....                     | 14.33 |

Total receipts ..... **\$1063.99**

Total credits ..... **\$2092.73**

**EXPENDITURES**

|                                                                                                                  |           |
|------------------------------------------------------------------------------------------------------------------|-----------|
| Salary of Secretary .....                                                                                        | \$ 275.00 |
| Stenographic work and printing .....                                                                             | 187.94    |
| Stationery and supplies .....                                                                                    | 46.27     |
| Postage .....                                                                                                    | 192.81    |
| Expense of meetings .....                                                                                        | 125.80    |
| Outside appropriations .....                                                                                     | 55.00     |
| For publication of Journal and Bulletin, less advertisements collected by publishers (printers bills only) ..... | 821.47    |
| Notarial and copyright fees and miscellaneous expense on Journal publication .....                               | 3.81      |
| Telegrams and tolls .....                                                                                        | 9.75      |
| Society pins .....                                                                                               | 10.50     |
| Badges for parade .....                                                                                          | 1.00      |
| P. O. box rent .....                                                                                             | 12.00     |

Total expense ..... **\$1741.35**

**BALANCE IN TREASURY**

|                                          |           |
|------------------------------------------|-----------|
| In bank—                                 |           |
| Checking account .....                   | \$ 105.00 |
| Savings account .....                    | 206.38    |
| Expense fund in hands of Secretary ..... | 40.00     |

**\$ 351.38 \$2092.73**

HENRY M. MORSE,  
Treasurer.

**NEWS NOTES**

Mr. John R. Penland, City Engineer of Albany, attended the Annual Meeting.

Mr. L. R. Stockman, City Engineer of Baker, Ore., was in Portland early in the month, looking after material for a large drainage contract at Ontario.

Major H. L. Bowlby, formerly State Highway Engineer of Oregon, is now in the office of the Chief of Engineers. He is advertising for recruits in a Highway Engineers' Regiment, and may be addressed at Room 25, War Department, Washington, D. C.

Edwin A. Taylor, who was Engineer of Construction for the Portland Water Bureau, for several years, is now a Major in the E. O. R. C., and is at present at Fort Lee, Virginia.

### METRIC FACTS

The metric system has made more progress in this country during the last six months than in the decade preceding the war. The awakening of the entire export trade to the necessity of adopting the system is the most prominent phase of the situation, but the movement is much more far-reaching and extends throughout the industries. American manufacturers have found it easy to fill orders completely executed in the metric system amounting to hundreds of millions of dollars. Many important national organizations, including such as those of the druggists, the canners, the wholesale and retail grocers, have gone on record and are becoming increasingly active. Even greater headway has been made in Great Britain and Russia.

It is inevitable that, sooner or later, the international metric system of weights and measures will be adopted by the few remaining nations. The sooner the change is made the more easily can it be carried out. The profound readjustments that will be necessary after the war will provide a most fitting opportunity for the development of plans for making the change with the least possible confusion.—The Metric News.

NAVY DEPARTMENT  
BUREAU OF NAVIGATION  
WASHINGTON, D. C.

November 27, 1917.

#### INFORMATION RELATIVE TO ENROLLMENT IN U. S. NAVAL RESERVE WITH PARTICULAR VIEW TO AVIATION INSPECTION DUTY.

1. The present naval aviation building program requires additional officers, especially trained for inspection of aircraft

structure and engines. It is accordingly desired to secure applicants for training for such duty.

2. Requirements for training for commission in the Naval Reserve Flying Corps, for ultimate inspection duty, are: American citizenship and letters of recommendation from three reputable citizens. Applicants must be graduate mechanical engineers, civil engineers or electrical engineers.

3. Blanks for application will be furnished upon request addressed to the Supervisor, Naval Reserve Flying Corps, Bureau of Navigation, Navy Department, Washington, D. C. After application has been returned to the Supervisor, with the required letters of recommendation attached, the applicant is notified of the approval or disapproval of his application. If approved, he is directed to report at a designated place for examination, and if found qualified is there enrolled. Enrollment is in the Naval Reserve Class 4 for Class 5 as Seaman Second Class, for subsequent training for Ensign in the Naval Reserve Flying Corps.

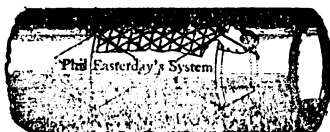
4. Upon being called to active duty these men are given a special training course from one month to six weeks with the Naval Aviation Detachment, Massachusetts Institute of Technology, and approximately one month of further training at some aircraft, or aircraft engine factory. At the end of the training period men found satisfactory are commissioned as Ensigns in the Naval Reserve Flying Corps. Officers so commissioned are under general enrollment in the Naval Reserve Flying Corps, but are particularly utilized for inspection duty and for shop management at naval air stations.

5. If a man's name has been posted for physical examination for the National Army he is not eligible for this enrollment, unless he presents a certificate from his Local Board to the effect that his class and order number are so low that he is not within the current quota for his Local Board.

L. C. PALMER.

### EASTERDAY AND HIS PIPE.

What the Bulletin thinks of Phil Easterday and his concrete culvert pipe is difficult to express in printed words. Perhaps you will get the idea if it is expressed in these simple words: "They are all right."



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

PHIL EASTERDAY

305 BOARD OF TRADE BLDG.

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Engineering



# BULLETIN

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No. 26

PORTLAND, OREGON

March, 1918

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**Mr. E. B. Thompson**

M. Am. Soc. C. E.

Will deliver an illustrated lecture  
before the members of the

**American Society of Civil Engineers**

**American Institute of Electrical Engineers**

**National Electric Light Association**

**Northwestern Association of Highway Engineers**

**Oregon Society of Engineers and the**

**Unorganized Horde of Civil Engineers.**

His Subject

**“The Oregon City Locks”**

should fill the assembly room at the

**UNIVERSITY CLUB**

to overflowing

---

*Jefferson Street Entrance Leads Directly to the Assembly Room*

---

**THURSDAY, MARCH 21, 1918, AT 8:00 P. M.**

You will be interested

Come early

**OFFICERS**

O. E. Stanley, President.  
 P. H. Dater, 1st Vice President.  
 J. P. Newell, 2nd Vice President.  
 J. R. Thompson, 3d Vice President.  
 C. J. Hogue, Secretary.  
 H. M. Morse, Treasurer.

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|                  |               |
|------------------|---------------|
| F. A. Naramore   | L. F. Harza   |
| J. R. Penland    | O. Laurgaard  |
| D. W. Taylor     | H. F. Blood   |
| J. W. Cunningham | F. I. Fuller  |
|                  | J. C. Stevens |

**COMMITTEE CHAIRMEN**

J. R. Thompson, Membership.  
 D. W. Taylor, By-Laws.  
 H. F. Blood, Library.  
 P. H. Dater, Program.  
 H. A. Rands, Legislative.  
 F. A. Naramore, Public Relations.  
 R. E. Cushman, Publicity.  
 J. W. Cunningham, Publication.  
 H. E. Kremers, Educational.  
 W. S. Turner, Nominating.

**"JUST GETTING ALONG"**

I met a man on the street the other day, and in reply to a question as to his welfare he said that he was doing some work, keeping pretty busy in fact, but in the matter of income, was "just getting along."

Now what kind of a situation is it which we are facing, let me ask, when an engineer of thirty years of active and honorable experience is "just getting along?"

For the work that this man is doing; for the boiled down essence of engineering knowledge and experience that he is giving to his clients, he should receive from \$500 to \$1000 a month. But is he?

Oh, no. He is "just getting along," which may mean that he is probably nearly as well paid as a fairly skilled laborer in a ship-yard who began to learn his work less than two years ago.

We are all giving to our employers the result of our technical education, and of our ten, or twenty, or thirty years of hard won experience along engineering lines, and we are, one and all, "just getting along." And all the while, the time when we will be laid on the shelf is coming closer and closer.

We are giving the benefit of ripened judgment which can come only through years of thought and study,

and failures and successes. We are saving for our employers a hundred dollars here, a thousand there and ten thousand in another place, by advice, spoken in a few minutes, but the result of years of experience. And because it takes but a few words, and because it seems but a small matter to us, and one that anybody should understand, and because we have been trained to do these things, and have not been trained to place a correct money value upon them, and to insist upon getting that value, we are paid wages that scarcely sustain our families. We are "just getting along."

What is the remedy?

If this were a civil engineering job instead of a human engineering one, we would know at once just what to do.

We would look the ground over very thoroughly, always keeping in mind the final result to be achieved. We would make a careful survey of all obstacles, and plan to take advantage of all favorable circumstances. We would, if we were not experts in this particular line of construction, consult competent counsel, as our good friend Harrington Emerson advises, and would finally get the plan worked out on paper to the last detail that might be foreseen; then we would begin to select the men to do the work. This man for this position, and that man for that place. They would be instructed in their parts, and given full authority to produce results, and would be told when and where to begin. With careful supervision, success would be assured.

You have seen this program followed a good many times, and so have I.

What a contrast to the way we go about getting an increase of pay!

After waiting until we can no longer meet our grocer without a blush, and until our kiddies are the "talk of the street" in the matter of clothing (or rather the lack of it) we watch until we see the boss return from a satisfactory meal at the club, sink into his chair with a sigh of relief and pollute the atmosphere of his office with smoke from a fat cigar, while a smile of contentment spreads over his face.

Then we sidle in, inform him that it is a fine day, and that having worked for him faithfully and well for the past ten years, we think that in view of the high cost of existence, we are entitled to a slight raise, not necessarily for publication, but as a matter of good faith.

Well, if we get out of the interview before we have promised to work for ten a month less, and put in two extra hours on Saturdays through the rush season, we may consider ourselves fortunate.

The boss knows, and we know that he knows it, that he can pick up a man to take over our work before the ink is dry on the last line, at the same salary that we are getting (or a little less for the first month) and that he will never know that he is not getting the same value from the toll of this new man that he did from ours, after our ten years of experience.

The result of handling the task of getting an increase of salary in this case is about parallel with what might be expected if one man were to attempt to build a bridge over the Willamette without assistance. He might accumulate a lot of valuable experience, but he would not get very far on the strength of it, and would be fortunate if he were not drowned.

A well thought out plan and co-ordinated effort are necessary. And of the two, the latter seems to be by far the more important.

Are you beginning to get the drift? Is not organization the real solution of the salary question?

If not, what then is the solution?

If it is, why delay the organization?

Bring an engineer friend to the next meeting of the Oregon Society of Engineers. Application blanks will be provided for all.

#### UNSELFISH CO-OPERATION REQUIRED

The executive committee of the Cleveland Engineering Society on Jan. 11 approved the following report of its intersociety relations committee:

It is evident, from many printed articles in the technical press, from utterances of public speakers, and from

the official actions of many technical societies, local and national, that there is a widespread and growing conviction that engineers by their training and equipment are especially qualified to direct and administer public works and civic affairs to the better advantage of the entire community.

It is essential for the successful conduct of such service that there should be efficient organization and unselfish co-operation of the entire body of engineers. The foundation units of such an organization must be the local societies. For the majority of engineers their local interests are of the first importance. These affect most directly their conditions of living and their social relations as members of the community.

It is necessary for the engineers of each community to act as a body before any efficient nationwide co-operation can be effected. Therefore, the first essential is the formation of strong local engineering societies. The national societies should draw their strength from the whole body of engineers. The national societies and local societies should be mutually supporting and not competitive. The national societies will probably always be divided along professional lines. The national societies can best promote the advance of technical knowledge. For the prosecution of those wider activities technical lines should be ignored and the national societies brought into the closest relations with the all-inclusive local societies.

To this end we respectfully suggest that the national societies consider as a prerequisite to membership that a candidate shall show membership in an accredited local society.

#### PERSONAL ITEMS

Mr. Fred S. Beach writes from 1310 Montrose Ave., Chicago, that he is employed at the International Harvester works as tool designer at a salary that causes him to take an unnatural interest in the income tax. At any rate, any kind of interest in this tax seems unnatural to a Portland engineer.

Mr. N. R. Edmondson dropped in on us a few days ago to pay his dues for

**CRANE CO. USES METRIC SYSTEM**

Mr. J. W. McEachern of Crane Company, Chicago, at the annual convention of the American Metric Association in New York last December said:

"We can show that the advantages to be derived from such use of the metric system as we favor would far outweigh any cost that could possibly be entailed by reason of the change, and that the quality of our business

efficiency would be raised measurably thereby. We can show most graphically and conclusively that the Metric system is simpler, more elastic, more adaptable, less wasteful, more widely known and understood and used, more rational, and more practicable, than the so-called English system or any other system of weights and measures now in common use anywhere in the world."

**"BULK HANDLING OF GRAIN"**

is the title of the next issue of the  
**JOURNAL OF THE OREGON SOCIETY OF ENGINEERS**

It will contain articles on

**"The Municipal Grain Elevator of Portland"**

**"The Astoria Terminal Elevator"**

**"Country Grain Elevators"**

**"How the Farmer Looks Upon Bulk Handling of Grain"**

**"Grain Shipment From the Columbia River"**

**"Federal Grain Standards"**

Each is written by an authority on his subject.

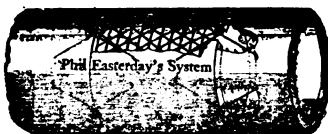
More than 3000 copies will be circulated among Engineers, Farmers, Grain Dealers and Business Men.

Phone Main 8922 and a representative will explain advertising rates and take your copy. Forms will close April 15.

John W. Cunningham, Chairman  
**PUBLICITY COMMITTEE,**

414 Spalding Building

Portland, Or.



**"Permanent as the Pyramids"**

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

**PHIL EASTERDAY**

**305 BOARD OF TRADE BLDG.**

**MARSHALL 1632**

1016  
RE

Engineering 9



# BULLETIN

No. 27

PORTLAND, OREGON

April, 1918

## APRIL MEETING

MR. A. G. JACKSON

in charge of the

EDUCATIONAL DEPARTMENT

District Forester's Office

will give a talk on

**"THE WORK OF THE FOREST SERVICE"**

Including Trail and Bridge Building, Fire Fighting,  
Reforestation and Recreation.

ILLUSTRATED WITH SLIDES

Room A, Central Library

**WEDNESDAY, APRIL 24th, 1918**

**EIGHT P. M.**

**OFFICERS**

O. E. Stanley, President.  
 P. H. Dater, 1st Vice President.  
 J. P. Newell, 2nd Vice President.  
 J. R. Thompson, 3d Vice President.  
 C. J. Hogue, Secretary.  
 H. M. Morse, Treasurer.

**DIRECTORS**

|                  |               |
|------------------|---------------|
| F. A. Naramore   | L. F. Harza   |
| J. R. Penland    | O. Laurgaard  |
| D. W. Taylor     | H. F. Blood   |
| J. W. Cunningham | F. I. Fuller  |
|                  | J. C. Stevens |

**COMMITTEE CHAIRMEN**

J. R. Thompson, Membership.  
 D. W. Taylor, By-Laws.  
 H. F. Blood, Library.  
 P. H. Dater, Program.  
 H. A. Rands, Legislative.  
 F. A. Naramore, Public Relations.  
 R. E. Cushman, Publicity.  
 J. W. Cunningham, Publication.  
 R. E. Kremers, Educational.  
 W. S. Turner, Nominating.

**MINUTES OF MARCH MEETING**

The March meeting of the Association was held in the Assembly Room of the University Club, Thursday, March 21st., at 8 p. m.

Mr. J. Hunt Hendrickson spoke briefly of the opportunity for technically educated men to obtain commissions in the Ordnance Department and asked the men to call upon the officers who were to be in town a few days the following week.

Mr. E. B. Thompson, Asst. Engr. U. S. War Dept., told of the construction of the new locks at Oregon City, illustrating his talk by means of pictures and plans.

At the close of his lecture a general discussion of the work by nearly everyone present was enjoyed.

**OPPORTUNITY REGISTER**

Enclosed with this bulletin you will find an employment registration blank. For some time the Society has maintained an employment register which has been of much service to members and to employees. This register has contained not only the names of men

seeking positions, but also the names of men at present more or less permanently employed, who desired to keep in touch with opportunities which might enable them to better their positions.

It is more important that this register be kept in working condition now than ordinary times. Engineering work has been scarce for several years, many engineers have left the community, and many have gone into National service. Work, on an average distribution, is still scarce, but there are occasional spots of considerable activity. The value of an engineer and of engineering training is being more and more generally recognized. In these emergency times, more and more new kinds of positions are being offered and efficiently filled by engineers.

The present registration list is limited and is more or less out of date. It is desired to revise it and to have it contain, not only the names of men open for positions, but as complete a register as possible of members of the Society, so that when an unusual opportunity is offered, a good list for suggestions may be available for the benefit of members of the Society and of the community. Therefore, every member who is open for a position now, or who is not averse to occupying a better one than he does at present, is requested to fill out the enclosed blank and return it to the Secretary, at P. O. Box 973, Portland.

You are also requested to signify, in the blank space for classification, whether you desire your name to be placed on the "Active" or "Potential" list. New lists will be compiled from the returns and the effort will be made to keep them up to date, to know when positions offered have been filled, and to know when registrants on the "Active" list have become satisfactorily located and should be transferred to the "Potential" list.

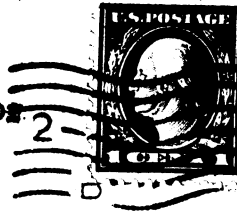
**ADMITTED TO MEMBERSHIP**

There have been admitted to active membership in the Society, Messrs. Lawrence C. Newlands, General Manager of the Oregon Portland Cement Co., Oswego, Oregon, and Edwin A. Williams, Engineering Department, Water Bureau, Portland, Oregon.

51.6  
R.R.

Engineering

University of Illinois  
Urbana Ill.



# BULLETIN

No. 29

PORTLAND, OREGON

June, 1918

*#28 never published* *JUN 22 1918*

## JUNE MEETING

Room A, Central Library

Thursday, June 20, 1918

Eight P. M.

### MR. R. J. GRACE

will discuss the design, construction and behavior of one of the most interesting of the late engineering accomplishments,

#### THE REINFORCED CONCRETE SHIP

An open discussion will follow, which will be participated in by designers and builders of concrete, steel and wood ships, in which comparisons will be made between the different types.

**OFFICERS**

O. E. Stanley, President.  
 P. H. Dater, 1st Vice President.  
 J. P. Newell, 2nd Vice President.  
 J. R. Thompson, 3d Vice President.  
 C. J. Hogue, Secretary.  
 H. M. Morse, Treasurer.

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| J. W. Cunningham | F. I. Fuller  |
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 J. W. Cunningham, Publication.  
 R. E. Kremers, Educational.  
 W. S. Turner, Nominating.

### MINUTES OF MEETING OF THE OREGON SOCIETY OF ENGINEERS

Room A, Central Library, April 24th.

The April meeting of the Oregon Society of Engineers was held in Room A, Central Library, Wednesday evening, April 24th, President O. E. Stanley presiding, and 39 members and guests present.

The minutes of the March meeting were read and approved.

Mr. Cushman, Chairman of the Committee to consider affiliating with the American Association of Engineers, reported that while the American Association appeared to be working along very interesting lines, the cost of membership was such as to make it seem inadvisable to consider affiliating at the present time, and therefore recommended that the matter be indefinitely postponed. The report was adopted.

The resolution attached hereto was proposed, recommending an increase in salaries of city, county and state technical employees.

It was moved by Mr. Cunningham, and voted, that the resolution be adopted.

It was moved by Mr. Fisher, and voted, that copies of the resolution be sent to the city and county commis-

sioners, the State Board of Control and the Press.

Mr. Adamson, Chairman of the Committee on Club Rooms, reported that it had been found impracticable to arrange for joint rooms with other Societies. He also reported that several satisfactory rooms were available at a rental of about \$40.00 per month. No action was taken in the matter.

The By-Laws Committee gave notice that amendments to the Constitution will be presented to the Society by letter ballot:

1. Reducing the number of nominees for each office to one.
2. Discontinuing the nominating committee and providing for the nomination of two names for each office by primary ballot.
3. Providing for the placing of additional nominees on the ballot by petition.
4. Providing for local chapters of the Society.

A referenda ballot of the American Association of Engineers was presented and voted on as follows:

Referendum 1. Are you in favor of the principle and plan of organization such as set forth by the bill incorporating the American Academy of Engineers? Voted, no.

(This bill names 50 prominent engineers and provides that they may incorporate the American Academy of Engineers, the membership of which shall consist of not more than 200 regular members who shall be self-perpetuating. It further provides that the Academy shall, at the request of the Government, "Investigate, examine, experiment and report on any subject of Engineering, Science or Art." It seems to provide for an aristocracy of self-chosen engineers and to reserve for this aristocracy the principal credit due the engineering profession for research and investigation.)

Referendum 2. As an increased food-producing measure, are you in favor of extending priority Class A1 for equipment needed in drainage, to protect 1918 crop? Voted, yes.

Referendum 3. Are you in favor of universal military training? Voted, yes.

"Fourth General Adjustment of the Precise Level Net."

The Reclamation Service and the Forest Service have done considerable level work in this state, but no complete results have ever been published. It is possible to write to either one of these organizations and in most cases get detailed information. No publications have been issued that show the location of these level lines.

The writer believes that it is very unfortunate that the level lines of other organizations, and particularly level lines of the railroads do not refer to mean sea level as computed by the Geological Survey and the Coast Survey. If all long lines of levels could be started from U. S. G. S. bench marks and carried through to other U. S. G. S. bench marks in closed circuits it would make it possible to obtain accurate elevations in large parts of this state that are now unlevelled. It is true it is possible in some cases to make adjustments between certain railroad levels and the government level lines, but these adjustments are not always satisfactory. In some cases there are breaks in railroad preliminary surveys that have caused considerable confusion in attempting to make the railroad levels fit the government levels.

Of late years there has been an evinced desire of organizations to get better starting points and the writer urges that in all cases where level nets are run that efforts be made to correlate starting points with some U. S. G. S. bench mark, and it is particularly desirable that in cases where such level lines are run that permanent bench marks be left in such a way they can be re-located. Not long ago the writer learned of a level line that covers an extensive distance in eastern Oregon, that was highly accurate and closed at both ends on U. S. G. S. bench marks. All the intermediate marks were, however, of a temporary nature and have now disappeared and the data that was secured was no longer available because nothing permanent was left behind. The setting of a short piece of iron pipe, or the driving of railroad spikes in established trees, or marks on rocks

or concrete structures should always be left at reasonably frequent intervals.

It is understood the Oregon Highway Commission is making an effort to do all its level work in connection with government bench marks and expects to leave permanent marks so they will be available for other persons. The problem of correlating traverse lines and contoured topography is somewhat the same, although it is not always possible to accomplish the desired result with traverse as the triangulation and traverse figures published by the government are not in the form that would be easily connected to our land lines. Contoured topographic information is, however, valuable.

At the present time the War Department is anxious to get contoured maps of certain areas in Oregon. The writer has been obtaining some of these data from timber companies and in most cases they were glad to cooperate. I believe this is a matter that should be taken up accurately with the Oregon Society. I have prepared a map of Oregon showing areas that have been contoured by various organizations and this map looks like a crazy quilt. It may be the Oregon Society might desire to inspect this map at some meeting.

Very truly yours,

LEWIS A. McARTHUR.

**COAST ARTILLERY TRAINING  
CAMP, FORT MONROE, VA.**

May 14, 1918.

FROM: Commanding Officer.

TO: Oregon Soc. Civil Engineers, c/o  
City Engineer, Portland, Ore.

SUBJECT: Coast Artillery Training  
Camp.

1. For the American Expeditionary Force in the present war the Coast Artillery Corps is furnishing the Army Artillery.

The Army Artillery comprises the medium and large caliber long range guns, also the anti-aircraft batteries and trench mortar batteries, which are attached to the army organization. It includes a large number of 6-inch guns, and all the artillery of heavier caliber; both the tractor artillery fir-

ing from wheeled carriages or emplacements, and the heaviest guns, moving on and firing from railroad tracks.

Practical surveying and the use and construction of maps form a most important part in the firing of heavy artillery. The size and weight of the guns and ammunition, and the fact that good roads are available for the heavy artillery, require the use of motor traction and transportation; there must be officers capable of handling this branch of the work. Observation of fire by aeroplane and balloon brings the observation officer in touch with the aviation. Communications, which are either telephone, telegraph or wireless, require familiarity with electricity and electrical engineering.

2. The wide range of technical work, indicated above, which is required in order to operate a battery of large caliber, gives the officer of the heavy artillery opportunity to use to full advantage practically any special scientific training he may have had; in this manner keeping up with his particular profession, and serving in the capacity in which he is best fitted.

The Coast Artillery Corps at present stands in need of officers educated along scientific lines for the heavy artillery regiments.

3. Officers are now commissioned in the Coast Artillery only by successfully passing a three months' course of training at Fort Monroe, Va. The Training Camp is established by War Department orders to begin and end at certain fixed dates. The next camp will begin on July 6, 1918.

4. According to the regulations of the Training Camp, all candidates must be in the military service at the time they are accepted.

Under this regulation a special provision is being made for certain selected men now in civil life.

By applying to these headquarters and receiving the necessary papers the selected candidate, if subject to draft, proceeds to his Local Board, is inducted into the military service, furnished with transportation and ordered to report to the Coast Artillery School, Fort Monroe, Va. He is as-

signed to a special company for preliminary training before the opening of the camp. He is transferred to the latter when it opens, and is commissioned if he successfully passes the course. If not, his status reverts to that of an enlisted man, serving for the duration of the war.

As an enlisted man, however, he also has several opportunities. He may become a non-commissioned officer. By attending a course in the Enlisted Specialists' School at Fort Monroe he may study to become a non-commissioned staff officer, such as a master gunner (topographical work), electrician sergeant, sergeant major. A part of the same school is a course in wireless telegraphy, and a course in motor-truck driving.

For a man who is not registered, two courses of action are open. First, he may enlist in Coast Artillery at any recruiting station; he will then be sent to some coast defense. He will be sent as one of the enlisted men from this coast defense to the Training Camp at Fort Monroe, if the commanding officer of the coast defense so directs. Second, he may proceed to Fort Monroe at his own expense and enlist; he will then be assigned to the special company at the Coast Artillery School and transferred to the Training Camp when it opens. The latter course is preferable.

It is desirable to enlist or be inducted into the service in this manner, at the earliest possible time, as applications for the Training Camp are being filled rapidly.

Voluntary induction is considered the same as a volunteer enlistment.

5. It is not necessary for candidates to be 21 years of age in order to be commissioned. It must be emphasized, however, that any candidate under that age, will have to demonstrate unusual ability and maturity in order to pass the course successfully.

Previous technical training is not essential, but is extremely valuable. In general it has been found by experience that those who have had training in civil, mechanical, electrical or architectural engineering have been particularly successful in the Training Camps and as officers thereafter.

Following the business meeting, Mr. A. G. Jackson, in charge of the Educational Department of the District Forester's office, gave a very interesting talk, illustrated with slides, on the work of the Forest Service, including Trail and Bridge Building, Fire Fighting, Reforestation and Recreation.

#### RESOLUTION ON SALARIES OF TECHNICAL MEN

WHEREAS, living expenses have increased so that the purchasing power of a dollar is forty per cent less than one of two years ago, and

WHEREAS, the wages of men engaged in all kinds of labor and trades have been increased from forty to one hundred per cent, but the pay of technical men employed in the public service has not been so increased, and in most cases has not been increased at all, and

WHEREAS, there exists a great shortage of technically-trained men at this time, and the law of supply and demand, as well as the high cost of living, entitles such men now in public employ, to a substantial increase in pay, and

WHEREAS, in our judgment, the proposition that increases be granted to those only who may secure offers of more pay elsewhere, is unjust, inequitable and conducive of unethical activity on the part of such public employees, and

WHEREAS, "The laborer is worthy of his hire," regardless of whether he goes out and persuades some one to offer him more money.

THEREFORE, BE IT RESOLVED by the Oregon Society of Engineers, that our members, and other technical men, in the employ of the City of Portland, the County of Multnomah, and State of Oregon, are entitled to and, as a matter of right and justice, should be granted such increase in salaries as will in a measure restore the parity between salaries and their purchasing power that existed several years ago, before living expenses had increased to the present high level.

#### REPORT ON PROPOSED AFFILIATION OF THE OREGON SOCIETY OF ENGINEERS WITH THE AMERICAN ASSOCIATION OF ENGINEERS.

Board of Directors,

Oregon Society of Engineers:

The committee of investigation corresponded with the American Association of Engineers relative to the objects and accomplishments of that association to determine the advisability of affiliation.

The objects of the A. A. E. prove to be principally fraternal with the aim of bettering the engineer's standing before the public and promoting his economic and social welfare. In the matter of economic welfare the A. A. E. has already taken some action in the form of reports and statistics presented to the United States Government Railway Wage Commission in the interest of technical men employed by the railroads. The organization appears to be growing rapidly and has a large membership at the present date.

The aims and activities are well set forth in detail in the organization's publication "The Monad."

The dues of the A. A. E. are \$10.00 per year with a refund of \$2.00 per year per member and \$1.00 additional for each new member enrolled; this refund to be applied to maintenance of the local chapter. The requirements for admission are practically the same as for the Oregon Society of Engineers.

After due consideration of the above proposition the committee decided that our local association has all the elements necessary to accomplish locally what the National association will, it is hoped, accomplish nationally and while an affiliation would be of advantage, the increase in annual dues and the small amount allotted to a local society branch for its maintenance, makes the matter entirely impracticable at this time. This fact is emphasized when one considers that the present dues of the Oregon Society—\$5.00 per year—are barely sufficient to finance the society.

In conclusion, while the committee does not advise uniting with the A. A. E. at this time, it was suggested at the committee meeting that the O. S. E. should emulate the American Association in the matter of fraternity and an attempt to accomplish some definite objective, preferably in the matter of economics, a matter which requires definite action and unity.

Respectfully submitted,

H. L. VORSE,

C. J. HOGUE,

R. E. CUSHMAN, Chairman.

#### MEMBERS OREGON SOCIETY OF ENGINEERS IN WAR SERVICE

The following members in war service have been reported to the secretary, who will appreciate any corrections or additions:

H. L. Bowlby, Major, 43rd Eng., Road and Bridge Reg., A. E. F., France.

R. R. Clark, Engr. in construction Y. M. C. A. huts in France.

J. A. Foulhoux, Capt., Hdqtrs. 35th Div., Camp Doniphan, Fort Sill, Oklahoma.

Russell W. Frost, First Squadron, A. G. I. S., Ellington Field, Houston, Tex.

George Garrett, 23rd Eng., Camp Meade, Md.

David D. Glass, 2nd Lt., 42nd Eng., N. A.

Everett R. Green, Co. A, 23rd Eng., Highway, Camp Meade, Md.

Jay H. Keller, Ensign, U. S. N., U. SS. Kentucky.

John G. Kelly, Lt., Co. C, 10th Eng., Forestry, A. E. F., France.

Leonard Lundgren, Capt., 116th Eng., A. E. F., France, Topographical Officer.

Fred U. Mayhew, 1st Lt., 31st Eng., U. S. A., Fort Leavenworth, Kan.

Geo. T. McClean, Capt., Co. B, 29th Eng., A. E. F., France.

Alva E. McKennett, Capt., 18th Eng. Ry., A. E. F., France.

Ray B. McMinn, Co. B, 23rd Eng., A. E. F., France.

Charles A. Merriam, Capt., Const. Qtrmstr's office, Tullytown, Pa.

Robert Kendall Oberteuffer, 1st Lt., Co. A, 5th U. S. Eng., Corpus Christi, Texas.

N. C. Pearson, 1st Lt., Hdqtrs. Co., 318th Eng., Vancouver Barracks, Wn.

W. D. A. Peaslee, Capt., 316th Eng., Camp Lewis, Wn.

R. W. Price, 1st Battery O. T. C., Camp Lewis, Wn.

Kenneth C. Roberts, Sgt., Co. E, 18th Eng. Ry., A. E. F., France.

J. A. Sargent, Capt. Eng., Hdqtrs., Lines of Communication, A. E. F., France.

Herbert S. Schupham, Co. A, 116th Eng., A. E. F., France.

E. A. Taylor, Major, U. S. R., Uxbridge, Mass.

R. W. Thomas, 16th Co., 166th Depot Brig., Camp Lewis, Wn.

Henry P. Urdahl, Co. E, 18th Eng. Ry., A. E. F., France.

C. H. Willison, Capt., 316th Eng., Camp Lewis, Wn.

Edwin S. Woodford, School of Military Aeronautics, Austin, Texas.

Geo. S. Young, Capt. Eng., U. S. R., San Francisco, Cal.

#### OREGON GEOGRAPHIC BOARD

April 29, 1918.

Editor,

Oregon Society of Engineer's Bulletin, Salem, Oregon.

Dear Sir:

The undersigned, acting on behalf of the Oregon Geographic Board, wishes to call to the attention of the Oregon Society of Engineers the importance of better correlating surveys and geographic work in this state.

Most of the primary level lines in Oregon were run by the U. S. G. S. and they have now become so accurately adjusted there seems to be little chance of any material change in elevations in the state along these circuits. Definite information concerning the location of primary level circuits of the U. S. G. S. is contained on an Oregon index map, and in Bulletin 556, which may be obtained from the U. S. G. S. in Washington, D. C. The Coast & Geodetic Survey has run some levels in Oregon and information concerning them may be obtained direct from the Coast & Geodetic Survey, Washington, in the book entitled

It is absolutely essential that every candidate for the Training Camp should have a thorough understanding and working knowledge of algebra, to include quadratic equations, trigonometry to include solution of triangles, and logarithms. There will be no opportunity to attain this knowledge after the Training Camp begins.

6. Inquiries should be addressed to Director of Instruction, Coast Artillery Training Camp, Fort Monroe, Va.

7. If you desire to make application for the Training Camp, submit the following information:

(a) Name, age, weight, height.

(b) College or technical school attended, degree, special technical training you have had.

(c) If at present in a university, a recommendation from competent university authority as to your personality, ability to command, physical appearance. This recommendation should be delivered to you by the university authority and sent here in a sealed envelope, accompanying your application.

(d) Other letters of recommendation.

8. If your application is accepted, you will be sent the proper papers.

BY ORDER OF THE TRAINING CAMP COMMANDER:

C. L. KILBURN,  
Captain, C. A. C., Adjutant.

Qualification Blank.

(Covers information required in par.

7 (a) and (b) of letter.)

Name .....  
Address .....  
Age..... Weight..... Height.....  
Graduate of .....  
Year of Graduation.....Degree held.....

With what branches of mathematics have you a good working knowledge?

Business or professional experience....

..... Approximate income.....

Member of technical or honorary society .....

Special Qualifications .....

Signed.....

#### APPLICATION FOR MEMBERSHIP

**MARR, ROBERT A., Union, Oregon.**  
(Age 48. Born in Chicago, Ill.) Present occupation, Asst. Cashier, First Natl. Bank, Union, Oregon. Apprenticeship with Dickman and Mackenzie, Mining Engineers, Chicago, Ill., 1897. 1900, Assayer and Chemist, De La Mar Mercur Mines Co., D. McVickie, Genl. Supt., Mercur, Utah, 1901, Chief Assayer, Republic Power & Cyanide Co., D. C. Jackling, Supt., Republic, Wash., 1902, Assayer and Chemist, Chairman M. & M. Co., A. B. Brown, Supt., Ely, Nev., 1903, Mill Supt. Blake Lake Mining Co., Edw. Force, Genl. Mgr. Blake Lake, Ida., 1904-06, Assaying, Surveying and Examination work, Eastern Oregon Development Co., A. B. Brown, Supt., Sumpter, Ore., 1906-07, Examination Work, Nev., Ariz. and Cal., 1907-09, Asst. Mgr. Central R. R. of Oregon (Short Line), Union, Oregon, 1909-10, Supt. and Consulting Engineer, Rambler Copper & Platinum Co., W. J. Sherwood Mgr., Holmes, Wyo., Balance of time, 5 years on own cattle ranch, 3 years Asst. Cashier First Natl. Bank, Union, Ore., during which time did considerable metallurgical and examination work. Am a former member of A. I. of M. E. and W. T. C. & A. Societies. Endorsed by O. E. Stanley and C. J. Hogue.



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

**PHIL EASTERDAY**

**305 BOARD OF TRADE BLDG.**

MARSHALL 1632





1918

# BULLETIN

No. 30

PORTLAND, OREGON

October, 1918

**Eighth Floor Oregon Building**

**Fifth and Oak Streets**

**Monday, October 7th**

**at 8 P. M.**

**MR. E. J. MEHREN**

**Editor of the Engineering News-Record,  
the foremost Engineering Journal in the  
Western Hemisphere.**

**"HOW WAR MAKING IN WASHINGTON  
IMPRESSES AN ENGINEER."**

**Not all of us can get a near view of Washington  
during this great epoch, but we fortunately  
have the opportunity to get the impres-  
sions of an eminent engineer, who  
brings the Washington atmos-  
phere to the Pacific Coast.**

**Buy More Bonds.**

**OFFICERS**

O. E. Stanley, President.  
 P. H. Dater, 1st Vice President.  
 J. P. Newell, 2nd Vice President.  
 J. R. Thompson, 3d Vice President.  
 C. J. Hogue, Secretary.  
 C. F. Fisher, Acting Secretary.  
 H. M. Morse, Treasurer.

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|                  |               |
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| F. A. Naramore   | L. F. Harza   |
| J. R. Penland    | O. Laugaard   |
| D. W. Taylor     | H. F. Blood   |
| J. W. Cunningham | F. I. Fuller  |
|                  | J. C. Stevens |

**COMMITTEE CHAIRMEN**

J. R. Thompson, Membership.  
 D. W. Taylor, By-Laws.  
 H. F. Blood, Library.  
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 H. A. Rands, Legislative.  
 F. A. Naramore, Public Relations.  
 R. E. Cushman, Publicity.  
 J. W. Cunningham, Publication.  
 R. E. Kremers, Educational.

**C. F. FISHER APPOINTED ACTING SECRETARY**

By Orrin E. Stanley.

Sherman has claimed that he didn't say it, but it is nevertheless a fact, and I can't see just why he should disclaim the authorship of so time honored a saying. But that is neither here nor there. There can be no denying the fact, however, that the present war has messed things up to a considerable extent.

It has taken some of the most active members of our Society to France; it has lugged our Secretary off to California to build a shipyard, and now threatens to make another inroad into the membership to the extent of several more members at large and a few from the Executive Board, including, (modesty almost forbids that I should mention it) the acting secretary whom the Board selected to fill the vacancy caused by Mr. Hogue's absence.

C. F. Fisher has been chosen to handle the work of the office for the remainder of Mr. Hogue's absence.

In turning over the work of the office to the new acting secretary, I do so with some regret at parting with a work in which I have taken a deep interest for a long time, but with the assurance that the Society is losing nothing by the change.

There are a few thoughts that I

would like to leave with the members whose work keeps them in close touch with the Society.

A secretary can do a great deal towards keeping the Society alive and working towards a definite goal, but he cannot do everything. He must have the membership back of him, and with him, and leading him on by suggestions as well as by material help.

It is the duty of each member who stays with the Society to work, and work hard to keep up the interest, and to arouse new interest in its work, and in its members.

Engineers have the chance for which they have long waited—the chance to take a more active and vital part in the affairs of the government, and to be recognized for their true worth, as they never have been heretofore, if they will but seize the opportunity which the war has presented.

United action and immediate action are necessary.

Keep things moving so that when the war is over, and the soldiers return, they will find a more compact, energetic and useful organization than they left.

---

"An honest confession is good for the soul."

Can you remember a time when you were almost, or even totally, unprepared for eventualities, if you know what I mean?

If you are that one-and-only-individual-in-the-U. S. A. who has not had such an experience, what follows is not for you. It is written for such of the millions of readers under whose eyes this copy of the Bulletin may fall, who have at some time or other experienced the chagrin and annoyance, not to say concern, grief, sorrow and distress brought about by having neglected to do what should have been done at the time of all times proper for its performance.

Frequently most excellent and illuminating lessons may be learned from the experience of others. I will go still further, and say that there are

few, if any, among the unfortunate experiences that befall us and our friends, that would not benefit the rest of the human race if they were but given proper publicity. And there's the rub. No one likes to hold his own short-comings up to the heartless gaze of an unsympathetic public; and common decency, as it has been called, leads us to throw the mantle of charity over the errors of our friends. Thus each member of the race has to learn for himself, and to learn it again and again (for at first he will not believe that it can be true), the great fact that it is better to be safe than to be sorry.

Some of our worthy arcestors have, just before leaving for the Great Unknown, set down for the benefit of posterity a few of their experiences, but I fear that even they have been prone to furbish up their achievements a bit, and to dim the horrible glare of what their years had taught them was an unfortunate "fox pass," or as our French allies style it, a deplorable bone-head.

Now I will lay no claim to being less conceited than the average man, and am free to confess that it is a pleasure to have my fellow men think well of me, but when the path of duty lays so plainly before me that there is no mistaking it, even though I see at its farther end the heights of ridicule rising at the brink of the pit of oblivion, I am led to cast reason to the winds, "throw physic to the dogs," lay aside all caution and self respect, and follow the path to its unhappy end. In other words, it is my purpose, for once, if only once, to tell the truth about myself for the good that may come to others.

It would scarcely be fair to our neighboring republic and its salubrious climate to lay all the blame at its unhappy door. There must have been slumbering within my being, an in-born or an acquired tendency to postpone the performance of any task to some indefinite future time, popularly known as tomorrow. A short sojourn beneath the sunny skies of Jalisco developed and strengthened this tendency to such a degree that a score of years of conscientious effort has not

completely eradicated the effect. Now that I think of it, Mexico must have been almost wholly to blame, for when I had been in that country less than a week, and a poor, benighted native told me that he could bring my trunk to the hotel "tomorrow," I was, to put it mildly, real indignant, and told him things that cannot be printed in the Bulletin, even after cooling for twenty years. I got the trunk across the street the self-same day, and felt quite relieved. But looking back on the scene, I am inclined to be more lenient with the mozo, and somewhat at a loss to know why I should have been in such an all-fired hurry to unpack. If I had left the trunk in the depot another day or two I would not have had to unpack it at all, and besides saving all the wear and tear on the nerves caused by trying to talk an unfamiliar tongue, I would have been a whole dollar (Mex.) ahead of the game. And that dollar at compound interest—but that is another story—a story of great interest, to be sure, but not to be told just now.

Ah! those deliciously, delightful dreamy days that followed! Those days in which I learned the real value of tomorrow, the infinite capacity of "manana" for swallowing trouble, and care and worry. They are yesterday, now, and tomorrow is not yet.

But that isn't what I set out to say, at all.

You may have noticed how, after putting off a disagreeable task from time to time, you finally are driven, by something beyond your control, to tackle it and put it across, the darned thing wasn't half bad, after all; that is, if you were driven to it soon enough.

But this Thing of which I am telling you happened so casually, and it was always so much easier to find an excuse for not doing it than to put forth the energy for getting it done, that month followed month, and year came after year before the final straw was applied which tipped the platform to such an angle that it was more desirable to have the Thing done than to longer endure the agony of suspense.

★ ★ ★ ★

There! I find that I haven't the courage that I thought I had.

Tomorrow, perhaps, I may pluck up the necessary strength to tell the horrible details; but not today.

★ ★ ★ ★

If you must have the story finished, just cast your thoughts back across the pages of your personal history, and recall that thing which you postponed so long that it makes you sweat whenever you remember it, even to this day. And how glad you were when it was done, and how you have wondered why you let it go so long, and what a narrow squeak you had—just a matter of a few hours ahead of the other fellow; and how glad you are that you called in the afternoon of that particular day, instead of waiting until evening, as was your custom; and how, when she snuggled down in your arms and you began to lay plans for the future, you swore solemnly that even though you were lucky this time you would never, never risk losing a future prize by allowing your habit of procrastination to control your actions.

How nearly have you lived up to your good intentions?

Are you contemplating contracting for paving in—well—you know where good intentions are used for paving material, don't you?

In other words, have you paid your society dues?

If you are in doubt, send a check to the Treasurer and he will give you due credit. If you know that you haven't paid for the last half of the year, send a check, and do it P. D. Q. We need all the money we can get. If you are sure that you have paid for the whole year, and get a bill from the Treasurer in the next few days, don't stop to think it over, it has been pondered sufficiently by that worthy officer. Just grab your check book, make the proper symbols on a detachable sheet and mail it to Box 973, Portland, Ore.

I know that you want to read the rest of the Bulletin, but stop right here and write that check and put it in an envelope, properly addressed. You will enjoy life much better when that is done. Try it.

## ADVERTISE ENGINEERS

Maybe you noticed that we had a big Tractor Demonstration near Portland a little while ago. Or maybe you were in that comatose condition which engineers assume when working out some highly technical problem (getting the results down to a logarithm of a gnat's eyebrow, when a good guess would have answered the purpose much better), and failed to grasp the significance of this gathering of farmers and machinery salesmen.

What did they do?

A group of men who have tractors for sale banded together to arouse interest in TRACTORS. And they aroused interest.

It seems to me that engineers could use similar methods in advertising engineers and engineering.

That would be unethical, would it?

Does a goodly helping of ethics give you that comfortable feeling in the neighborhood of the belt that is induced by a substantial meal to which you treat yourself on returning from a good job well done? Don't you really prefer to be busy with profitable work than to sit in your office quietly reading the code of ethics?

Well, then, look here.

Forget for the time being that I can't design a concrete building as quickly as you can, and I'll overlook for the present the defect in your training which leaves you in blissful ignorance of some of the problems in sanitary engineering with which I have been crowding my brain between Bulletins. And we will both of us lose sight of Smithson's shortcomings in the field of city surveying. He can do things with machinery which make us both open our mouths in wonder.

Let us all get together and advertise ENGINEERS.

The public is woefully ignorant about our work, and if I speak slightly about you and Smithson, and each of you take pains to spread the information that I never designed an automatic change making machine nor a twelve story building, are we not all equally to blame for our poor standing professionally?

(Continued on page 6)



**WALTER H. GRAVES**  
Second President of the Oregon Society of Engineers

LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS

**WALTER H. GRAVES**

President of the Oregon Society of Engineers, 1913 and 1914.

Walter H. Graves was born at Bloomington, Illinois. He is of the ninth generation, American born, in the Graves lineage; his ancestors landing and locating in the Connecticut valley near the site of the present city of Hartford, in the year of 1643.

He attended the public schools of his native town and after finishing his high school course, matriculated at the Illinois Wes. University in 1870, and graduated in 1874, receiving the degree of B. S. Subsequently in a post-graduate course he was awarded the degrees of A. B. and A. M.

Immediately upon leaving college he entered the engineering service of the Government, later being detailed to the U. S. Geological Survey, where he served for five years, resigning from this service to take charge of the location and construction of several branch lines of the Illinois Central railroad. After finishing this work he was appointed Superintendent and Engineer for the Tabor-Independent Mining Co. near Leadville, Colorado, which position he held for about a year, when he resigned and removed to Denver where he could to better advantage devote himself to the promotion and development of several large irrigation projects which he had had under consideration for a number of years and which had been suggested to him through investigations in connection with the work of the Geological Survey.

At this time irrigation development was in its infancy in this country and Mr. Graves was one of the pioneers in this field and has been the designing and constructing engineer of more than thirty of the large and important irrigation systems throughout the West and while engaged in this work has had the responsibility of disbursing more than twenty-six millions of dollars in the construction of these projects.

In the Spring of 1890 he was summoned to Washington and offered the

position of Superintendent of Irrigation and Special Disbursing Agt. for the Interior Dept., an "Original Vacancy" office which had just been created by Congressional enactment. Accepting the appointment from President McKinley he held the office for the succeeding eleven years, during which time he expended for the Government in the construction of its various projects approximately seven millions of dollars.

When the U. S. Reclamation Service was inaugurated and all Government irrigation activities were turned over to that bureau including Mr. Graves' division in the Interior Dept., he resigned and repaired to his fruit-farm in southern Idaho. He found, however, that his farming operations were so interrupted by the demands for his engineering services that he abandoned the farm and removed to Boise, the State Capital, and resumed engineering practice. He soon found his business growing beyond his personal ability to handle and to meet the situation organized the Northwestern Engineering Corporation, opening branch offices at Spokane and Seattle, Wash.

While thus engaged his attention was called to the great areas of waste land, desolated and left by the lumbering industries operating in western Washington and Oregon, and he concluded that this was as legitimate a field for reclamation and conservation as that of irrigation and offered abundant and remunerative inducement for the exercise of the highest class of engineering skill and intelligence.

He became so impressed with the idea that the clearing of logged-off land successfully and economically, was wholly an engineering problem and the field was so vast and inviting, that he disposed of his interest in the Northwestern Engineering Corporation, located at Portland, Ore., and has since been devoting himself entirely to the business of reclaiming the wilderness of the Pacific Coast. After eight years of assiduous investigation and effort and the expenditure of nearly sixty thousand dollars of his own capital Mr. Graves feels confident that he has worked out practicable methods for reclaiming at least ten mil-

lions of acres of now idle and useless stump-land and converting them into useful and productive farming land along the Pacific Coast alone, and there are more than twenty millions of acres of similar land to be found elsewhere in the United States.

Each fellow in his own little corner, even if he makes all he noise he can, will not make much of a disturbance. But let all bunch together and unite in one grand whoop, and that particular section of the earth's surface will know that something has broken loose.

### ADVERTISE ENGINEERS

(Continued from page 4)

Will not we be just about nine times as far ahead if we all work together as if each tried to advance himself by clambering over the prostrate forms of the other two?

The tractor men got the farmers to thinking about tractors. That was the main thing. After that is accomplished each may tell the virtues of his own machine for the particular kind of work for which it is fitted.

Let engineers get the public to thinking more about engineers. There will be work for all when people know what we can do better than non-technical men.

It is to the interest of every member that his address be known by the officers of the Society. When you change your address, drop a card, giving your new address, addressed to P. O. Box 973.

Have you subscribed to the Fourth Liberty Loan? Of course you have. Not to have subscribed is unthinkable. But have you done your best?

This war is largely an engineering proposition. The U. S. surpasses every other country in the quantity and quality of its engineers. They have done big things and will pick up the Hindenburg line and set it on the other side of Berlin.

## Portland "Over the Top" Fourth Liberty Loan Commence Saving for the Fifth Loan



This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

PHIL EASTERDAY

305 Board of Trade Bldg.

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LIBRARY



# BULLETIN

No. 31

PORTLAND, OREGON

December, 1918

## OUR MEMBERS IN SERVICE

- S. J. Benedict, Second Lieutenant, 26th Engineers, A. E. F., France.  
H. L. Bowlby, Lieutenant-Colonel, 43d Engineers, A. E. F., France.  
R. R. Clark, Chief Engineer Const. Dept., Y. M. C. A., France.  
J. A. Foulhoux, Captain, Headquarters 35th Div.  
Russel W. Frost, Sergeant, Aviation Corps, San Leon Field, Dickinson, Texas.  
George Garrett, 23rd Engineers, A. E. F., France.  
David D. Glass, Second Lieutenant, 42d Engineers.  
Everett R. Green, 23d Engineers, A. E. F., France.  
John W. Green, Field Artillery Central Officers Training School, Camp Douglas, Ky.  
L. F. Heuperman, Canadian Siberian Expedition.  
Milton Harris, Second Lieutenant, 9th Field Artillery.  
Jay H. Keller, Ensign, U. S. Navy, U. S. S. Kentucky.  
R. E. Kremers, Capt. Engineer Officers Training School, Fort Humphries, Va.  
Hollis W. Libbey, Ensign U. S. Navy.  
Leonard Lundgren, Captain 116th Engineers, A. E. F., France.  
Fred U. Mayhew, First Lieutenant, 31st Engineers.  
Charles A. Merriam, Constructing Quartermaster, U. S. Army.  
Alva E. McKennett, Captain 18th Engineers, A. E. F., France.  
Geo. T. McLean, Captain 29th Engineers, A. E. F., France.  
Ray B. McMinn, 23d Engineers, A. E. F., France.  
Benjamin Ostlind, Captain Engineer Officers Training School.  
Robert K. Oberteuffer, First Lieutenant, 5th Engineers.  
N. C. Pearson, 318th Engineers.  
W. D. A. Peaslee, Captain 316th Engineers.  
R. W. Price, 1st Battery O. T. C.  
Kenneth C. Roberts, Sergeant 18th Engineers, A. E. F., France.  
George E. Sandy, 23rd Engineers, A. E. F., France.  
J. A. Sargent, Captain Lines of Com., A. E. F., France.  
Herbert S. Schupham, 116th Engineers, A. E. F., France.  
E. A. Shafer, First Lieutenant, Engineers.  
Elmer C. Strayer, First Lieutenant, Engineer Officers Training School, Fort Humphries, Va.  
Edwin A. Taylor, Major 526th Engineers, A. E. F., France.  
R. W. Thomas.  
Henry P. Urdahl.  
G. S. Vincent, in U. S. Army.  
Foster P. Wentz, First Lieutenant Construction Dept., Quartermaster Corps, Newport News, Va.  
C. H. Willison, Captain 316th Engineers.  
Edwin S. Woodford, School of Military Aeronautics, Austin, Texas.  
Geo. S. Young, Captain Engineers.  
Lieut. Carl J. Beatty, Royal Flying Corps, was killed in action in France, September 15, 1916.  
John G. Kelley, — Engineers, was killed in an accident in France in 1918.

**OFFICERS**

O. E. Stanley, President.  
 P. H. Dater, 1st Vice President.  
 J. P. Newell, 2nd Vice President.  
 J. R. Thompson, 3d Vice President.  
 C. J. Hogue, Secretary.  
 C. F. Fisher, Acting Secretary  
 H. M. Morse, Treasurer.

**DIRECTORS**

F. A. Naramore L. F. Harza  
 J. R. Penland O. Laurgaard  
 D. W. Taylor H. F. Blood  
 J. W. Cunningham F. I. Fuller  
 J. C. Stevens

**COMMITTEE CHAIRMEN**

J. R. Thompson, Membership.  
 D. W. Taylor, By-Laws.  
 H. F. Blood, Library.  
 P. H. Dater, Program.  
 H. A. Rands, Legislative.  
 F. A. Naramore, Public Relations.  
 R. E. Cushman, Publicity.  
 J. W. Cunningham, Publication.  
 R. E. Kremers, Educational.

1528 members of the American Society of Civil Engineers are serving in the armies and navies of the United States and its allies. This is slightly more than 17 per cent of the total membership.

511 members of the American Association of Engineers are in the service, which is reported to be about 20 per cent of the total membership of this young organization.

About 17 per cent of the Oregon Society of Engineers are or were in the service. Many other members would have been in the service if the war had continued a few months more. Their applications had been filed and a considerable number had been recommended for commissions.

The Oregon Society of Engineers is in receipt of a notice that the Seventh Annual Oregon Irrigation Congress will meet in the Convention Hall, Imperial Hotel, Portland, Oregon, Thursday, Friday and Saturday, January 9, 10 and 11, 1919.

A splendid program has been prepared. Reconstruction, Constructive Land Development and plans for caring for the returned soldiers will be the principal topics for discussion.

If you are in doubt as to whether your dues are paid to date, enquire now. Don't take any chance of your vote being rejected because your dues are not paid.

In compliance with the amendment to the Constitution, primary ballots were mailed to members by the Secretary on Nov. 30. These ballots must be returned in time to be in the Portland postoffice or in the hands of the Secretary before January 1.

One envelope to contain the ballot was enclosed. If members desire, they may enclose this envelope in another one and place their name on the enclosing envelope.

However, the Executive Board, which will canvass the result of the primary, will take proper measures to preserve the secrecy of the ballot.

There are several good men available for positions as draftsmen, surveyors, or engineers. One or two have just been honorably discharged from the U. S. service.

Anyone desiring capable men should communicate with the Secretary. Call Marshall 4100.

The prohibition of all public meetings on account of the influenza epidemic prevented the Society from having any meetings in October and November after the meeting of October 7th.

A meeting had been arranged for the first week in December but had to be cancelled as the speaker was called out of the city.

The ordinance presented to the Portland City Council providing for the establishment of a City Plan Commission in Portland was rejected by the Council on Dec. 4th.

A new ordinance, providing for such commission, was introduced on Dec. 11. This ordinance makes the Mayor, City Attorney and City Engineer ex officio members of the commission. Seven members will be appointed by the Mayor.

It has been suggested that of these seven at least one should be an engineer not connected with the city government, and one an architect.

The Executive Board will meet at the Hazelwood, Thursday, Jan. 2, 1919, at 12:15 P. M., to count the primary ballots and determine the nominees for the various offices to be filled.

## ENGINEERS BULLETIN

Election by immediate members

The minutes of the Executive Board, read and passed upon facts near acts for the quiring at can not be the minutes informed, of any and

At present required for This is the join. Ask blank app to send the believe ma a member. Do it not be restore

At the E. Perry, ety, was Umatilla

John H. Engineer years, has engineer Project.

Ralph A. neer of P. Constructi ing compa couver, W

C. H. Pu neer with sion, is S gineer, Fe headquarte

Percy H. sistant Sta pointed S Withycom

Joe J. B the State R past year, with Rob Worchester

Newell of the National Research Council of the National Council of Defense was read by the Secretary and the President was directed to advise that the Society would cooperate in any reconstruction movement that the National Council of Defense might initiate.

A draft of a proposed Legislative Act providing for the establishment of City Plan Commission in Oregon cities was submitted. The Secretary was directed to provide each member with a copy of this and of the pending city ordinance providing for a City Plan Commission in Portland for consideration at the next meeting.

The meeting adjourned.

C. F. FISHER,  
Acting Secretary.

A meeting of the Executive Board of the Oregon Society of Engineers was held at the Hazelwood Dec. 2, 1918, at 12:15 P. M.

The following members of the Board were present: O. E. Stanley, P. H. Dater, J. P. Newell, J. R. Thompson, D. W. Taylor, J. W. Cunningham and O. Laurgaard. Several other members of the Society and C. E. Cheney were also present.

The minutes of the previous meeting were read and approved.

Bills, amounting to \$36.75, were presented and ordered paid.

President Stanley announced that the proposed ordinance providing for the establishment of a City Plan Commission in Portland was before the Board for consideration. All present joined in the discussion which followed, including Mr. Cheney, who had been invited to attend and explain features of the proposed ordinance.

On motion of Mr. Newell, the Secretary was instructed to advise the Mayor and City Commissioners of the following action of the Executive Board.

First; Resolved, that the Executive Board of the Oregon Society of Engineers approves the establishment of a City Plan Commission.

Second; Whereas, it appears that the proposed ordinance providing for a City Plan Commission does not confine the duties of the commission to the making of general plans,

## OREGON SOCIETY OF ENGINEERS BULLETIN

at a special meeting held November 21, to establish an Engineering Societies Employment Bureau. The Secretaries of the Founder Societies, Charles Warren Hunt, Bradley Stoughton, Calvin W. Rice, and F. L. Hutchinson were appointed the Board of Directors, reporting to Engineering Council. Mr. Rice has been elected Chairman of this Board and Mr. Walter V. Brown has been engaged as its manager.

Mr. Brown was for several months previously in charge of the office of American Engineering Service.

Engineering Societies Employment Bureau will have its office in Engineering Societies Building, 29 West 39th Street, N. Y., to which address all communications should be sent. Registration blanks and further information may be had upon request. Visitors will be welcome. No charge will be made for services. No geographic limitations will be set, nor will the service be restricted to members of the Societies. A non-member, however, will be expected to present or send a letter of introduction from a member. Not only engineers and assistants in all branches of the profession seeking engagement or advancement are invited to register, but also companies, governmental departments (federal, state and municipal), banks, engineering practitioners and other parties requiring the services of engineers, are invited to make their wants known to this Bureau.

From time to time there has been discussion as to whether "employment" could be conducted by a central organization, or was peculiarly a function of each Society for its members. It has been pointed out that among important reasons for a central bureau are greater possibilities

for proper publicity, greater independence in suggesting names of engineers for engagements, greater efficiency and simplicity of operation both for engineers and for parties seeking the services of engineers. It has come to be the consensus of opinion of many persons that the activities of the societies represented in Engineering Council could be combined to advantage and conducted by the Council, although each Society might still find it desirable, at least for a time, to do more or less along these lines for its own members.

It will be the aim of Engineering Societies Employment Bureau to serve all its clients promptly, intelligently and impartially.

ALFRED D. FLINN,  
Secretary.

### APPLICATIONS FOR MEMBERSHIP

Abstracts of applications for membership in the Oregon Society of Engineers are published below for information of members. If there be any objections to any candidate, they should be filed before Jan. 1.

**PORTER W. YETT**, 291 Hawthorne Avenue, Portland, Oregon, (Age 26. Born Sevierville, Tenn.) (Murphy College, 1900. Portland Public Schools, Preparatory School, Holmes Business College, Portland School of Trades.) Two years electrical Engineering, two years Mechanical Engineering, two years Architectural Drawing, eight years practical experience—motor trucks, rock crusher and street paving. Manager City Motor Trucking Co. Endorsed by A. K. Grondahl and D. W. Taylor, Jr.

**PERCY M. MORSE**, Court House, Eugene, Ore. (Age 42. Born Rochelle, Illinois.) Reconstruction and Maintenance of Way, O. R. & N. Co., 1899 to 1906. Pac. Ry. & Nav. Co., location and construction, 1906 to 1907. Laying street grade for city of Ashland, 1907 to 1908. Construction O. E. and United Ry. Co., 1908 to 1909. City Eng. of Hood River, 1909 to 1916. Manager Eugene Ice & Storage Co., 1916 to 1917. Assistant to County Engineer, Lane Co., 1917 to date. Endorsed by J. P. Newell and Orrin E. Stanley.



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver. **PHIL EASTERDAY**

305 BOARD OF TRADE BLDG.

MARSHALL 1632

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R.B.

*Engineering*  
University of Ill Libr  
Urbana Ill



# BULLETIN

No. 32

PORTLAND, OREGON

March, 1919



## ALL ARCHITECTS AND ENGINEERS INVITED

North American Gymnastic Union

Turner Hall, 13th Street near Madison

Friday, March 21, 1919, at 7:30 P. M.

## ASTOUNDING AGGREGATION OF ATHLETIC ABILITY!

Cunningham's Curious Curves      Dater's Dexterous Delivery

Laurgaard's Laughable Lunges

will shed new light upon the science and art of

## BOWLING

in a match between the Architects and Engineers.

SEE 'EM! SEE 'EM!

Kremers and Kleemann, Violin Virtuosos

with their unparalleled engineering orchestra will discourse dulcet strains of delightful music.

HEAR 'EM! HEAR 'EM!

Billiards, cards, checkers and chess for those who prefer such diversions, and REFRESHMENTS FOR ALL!!

A spirited discussion of the Compensation of Engineers will be a prominent feature of the program.

Mr. G. C. Wells, Engineer and Explorer, will tell of Railroad Location in the Jungles (if we can find him).

ALL ARCHITECTS AND ENGINEERS INVITED

FRIDAY, MARCH 21

ORRIN E. STANLEY, Secretary.

## THE LIBRARY NUMBER OF THE BULLETIN.

It is proposed to issue an extra large edition of the Bulletin which shall contain a list of technical books which have been added to the Public Library during the past year.

The books of this library are available to members of the Oregon Society of Engineers, even though they do not live in Portland, and this issue of the Bulletin will be preserved for reference by all who may receive it.

Copies of the "Library Number" will be sent to all members of the Society, and a large number of extra copies will be kept at the Technical Room of

the Library for distribution as needed during the coming year.

That this number will prove to be an unusually good advertising medium for those having anything to sell to engineers, needs no demonstration. The wide awake merchant selling to technical men will recognize it immediately.

A rate of \$1.25 a column inch will place your proposition before practically all the engineers within buying distance of your store in attractive style and cheaper than the postage on a circular which you might send out.

Mail copy to Box 973, Portland, or phone for the Secretary to call and get it. (Marshall 4100, House 3).

**OFFICERS**

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 J. R. Thompson, 2nd Vice President.  
 O. Laurgaard, 3rd Vice President.  
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**GOOD MEN AVAILABLE**

Owing to the slowing down of ship building in and around Portland, several very good engineers find themselves temporarily at liberty. Their names, and brief records of their experience are on file in the office of the Secretary at the City Hall.

If you need any kind of engineering help you will find it to be a good plan to FIRST call upon the Oregon Society of Engineers, and if the right man isn't registered there, try all the other places you can think of afterwards. This, you will see, is the reverse of the usual custom, but you will also see that it is the more logical and sensible method of procedure.

The Society uses every effort to find the man you may be wanting, whether he is a member or not, but does not, unless specially requested, recommend one man for a place rather than any of the others whose names may be submitted at the same time.

The plan is to give employers a chance to choose from men who seem from their written applications, to have the qualifications called for, rather than to tell which man from the group they should select. This allows for an adjustment of the personal equation at the time of employment, and reduces the probability of friction at a later stage.

If you want a man let us help you.

If you want a job let us help you.

**WHAT ARE YOU DOING?**

What are you doing to make engineers more favorably known among the people with whom you come in contact?

Darned little, I'll bet.

Why so little? Are you ashamed of the profession which keeps your family from starvation?

If you are, for goodness' sake, get out, and get out quick. And if you are not, or for any other reason don't feel like taking up some other line of endeavor, get in under and boost for engineers and engineering.

What do you think our army could have done in France without its engineers?

What would be the present state of our own country without its engineering works?

Would you like to live in a place without street cars, telephones, sewers, paving, electric lights, gas, steam heat and the fifty-seven other varieties of every day comforts which are the result of engineering skill and ingenuity?

Not any.

Then the whole thing resolves itself down to this:

You are ashamed of the engineering profession because of its comparatively low rate of compensation. And justly so. But you and I are as much to blame for this state of affairs as any other two men we can name.

Why not adopt the standard Post Script of the Duluth Engineers' Club? Try it a year and see how it works out in practice. It is:

If you will tell people what great fellows Engineers are, they will eventually believe it and might respect and compensate them in proportion.

**THE BENNETT PLAN**

A plan has been evolved by a member of the Oregon Society of Engineers, Mr. C. N. Bennett, which gives promise of doing more for the engineers of Portland and vicinity than even the law for registering professional engineers.

See what you think of it.

Mr. Bennett says that engineers in

general have pretty fair ideas, but when they try to tell them to some one else, or worse still, to a group of other people, they are, as a rule, sadly lacking in means for getting their ideas across.

Few of them can write concise, readable English, and still fewer can stand on their two feet and talk interestingly and convincingly. And the pity of it all is that many of these tonguetied members of our noble profession look with scorn upon their brothers who may possess the "gift of gab."

It will be generally admitted that Mr. Bennett is right, up to this point.

Now he proposes that a group of self sacrificing individuals band themselves together to study the art and practice of public speaking, and that they combine their ideas for the advancement of the engineering profession in such a way that each member of the class may have the benefit of the knowledge of all the others for any talk which he may be called upon to give outside of the class, and after having his points assembled for proper presentation, and having been drilled in the delivery in the class, he will feel more confidence in himself when he faces an audience of strangers, and will therefore be able to create a more favorable impression of engineers in general than would otherwise be possible.

#### CONCERNING PUBLIC SPEAKING

The following extract from the Engineering News Record of January 2, 1919, gives the views of Mr. Mehren, the editor, on a subject of vital importance to every engineer.

Mr. Mehren has made a tour of the country, and has had an unusual chance to observe engineers in all manner of conditions. His testimony on this subject is therefore beyond question.

Let this moral sink deep into your mind, and when you begin to feel uneasy on account of it, call up Mr. Bennett (Sellwood 1634) and tell him you are ready to join the progressives in the move to popularize engineers.

Last week I met two young engineers who have secured a return from a certain investment of time while in

college that is well worth recording for the benefit of other engineers. They took courses in public speaking.

One of them, engaged in highway work, has made as rapid progress as any young engineer I have ever met, and he is pointed toward a great success. He recently played an important part in a bond-issue campaign, both through writing and speaking. To a large extent he attributed his rapid progress to the recognition that has come to him through his ability to speak in public.

The other young man out of school only three and one-half years, has built up a large acquaintance in his specialty—technical advertising—an acquaintance of direct and constant value to him in his work.

These men are at the entrance of their careers, but already they are beginning to reap returns from their ability as public speakers. As years go by and they talk from fuller experience, their speaking asset will develop in value in a rapidly increasing ratio.

Training and practice in public speaking are to the thinking man not merely exercises in overcoming bashfulness, though they are hardly more than that for the man who deals in platitudes and spread-eagleism. For the thinking man public speaking is a training in clear thinking and concise exposition. Success as a public speaker comes from having something worth while to say and saying it clearly and forcefully. The young engineers in question have not merely overcome stage fright. They have schooled themselves to analyze questions thoroughly so as to disclose the essentials, and have learned how to present these essentials effectively.

And the important things are yet to be said:

A little training in public speaking goes a long way;

It is never too late too learn.

Moral: Go to the nearest Y. M. C. A. or similar institution and find out when the next course begins.—E. J. M.

#### A QUESTION IN ETHICS

We have no quarrel with our friends the doctors.

They come in mighty handy when

a fellow is beginning his earthly career, keep him feeling "so, so" while he lingers in this vale of tears, and finally make his exit legal by filing his death certificate at the city hall.

They are good fellows, too, and companionable when off their guard, and you can get them to talking with a seven syllable limit to their vocabulary.

Furthermore, we are told that "comparisons are odorous" or perhaps that word should be "odious" (why worry about a mere word?) but for the last week or more, since there has been more or less talk about the subsidence of the new municipal grain elevator which has cost the people of Portland very many hundreds of thousands of dollars, we have been wondering if perhaps the public, including some engineers who are not connected with the Commission of Public Docks, hasn't been a little too harsh and hasty in passing judgment on a subject of which it knows very little.

The people of Portland have just passed through an epidemic during which they put themselves almost unreservedly into the hands of the medical profession at its urgent request and demand. We wore masks and then went without them, closed places of amusement and churches, and forced the city hall employees to work short hours for a week (we will not dwell upon the enormity of this order) and all at what a cost to Portland! What a cost in money! What a stupendous cost in lives!

Did the City Health Officer stop this epidemic? He surely did not prevent it. Did the commission appointed by the Mayor stop it? Who can tell?

We are told that this was a new disease. That the doctors had not had previous experience with it to guide them; while in the building of a grain elevator, the driving of piles, the filling of flats and the dredging of waterways, pooh! these things have been done over and over again. There should be no excuse for failure in such things, assuredly not! But these things had not been done on this particular site, and there's the difference, or rather there's where the cases are

parallel; for we are told that this influenza was a combination of diseases, all of which had been cured separately, but now that they grouped themselves in one patient, well, sometimes the patient was lucky and recovered and sometimes he didn't. In the one case the doctors took the credit for the marvellous cure, and in the other—

One has to delve in higher mathematics to compute the number of reasons why the spread of this disease wasn't checked or prevented earlier, but even so, we do not blame the medical men. They did their darndest, and we admire them for their work. But more yet, do we admire them for the remarkable educational work that they have been able to "put across." We more than half believe their excuses!

Now why in the name of common sense can't similar excuses be made for an engineering—I was going to say "failure" but I don't mean that, for it isn't. Maybe I should say "surprise," for that is what you call a thing that doesn't turn out like you expect it to, isn't it?

The subsidence of the elevator has cost no loss of life. True, it has settled some, and may go down still further. Who can tell? But even so, the business of the city is not interrupted. The city hall is working full time, the churches and theatres are all open to members of the Commission of Public Docks and private citizens alike.

The men who designed and built the elevator did the best that they knew how, or that they were allowed to do by circumstances, and the building will either stop sinking of its own accord, be stopped by engineering methods, or, in time, go out of sight.

In the mean time, don't condemn the engineers. They are doing the best they can.

It looks as though engineers have a big job ahead of them—that of educating the general public to look with lenience upon their errors of judgment, even as our friends of the older profession of medicine have already educated us.

### EXCURSION TO THE NEW MUNICIPAL GRAIN ELEVATOR

In spite of the fact that March was doing its darnedest to "come in like a lion" twenty members of the Oregon Society and friends gathered at the City Hall Saturday afternoon, March 1, and were delivered at the site of the new grain elevator a few minutes later.

Work on the buildings was at a standstill, though a few men were engaged at cleaning up rubbish and getting things in shipshape.

Capt. Edmondstone, construction engineer of the Commission of Public Docks, met the party upon its arrival, but being a modest, as well as a very busy man, he detailed Mr. Sherwood, who has been on the construction almost from the beginning, to act as guide, which he did in a very acceptable manner, explaining the details of design, methods of construction, depths of test wells and materials encountered at various depths.

No adequate idea of the size of this work can be gained from seeing the plans, or reading pages of written description. One must walk over and through, and around the various buildings before he realizes the full value of the figures representing the height and length and width.

### RETURNED HEROES

They may disclaim the title, but don't you pay any attention to them if they do. It makes no difference if they didn't get a shot at a Hun. They started, which is more than some of the rest of us did, even if we did try to start. And from what we have been able to learn of the training camps, it took something of a hero to "stand the gaff" for the period of training.

Captain R. E. Kremers was located at Camp Humphries, Va., but came back to Portland about the middle of February, and is now at his desk in the City Hall as Chief, Bureau of Construction.

E. S. Woodford is regretting that he didn't bring his pet airplane back from Kelly Field with him, after having taken the trouble to break it to ride, and stand without hitching. He figures that it would save him a neat

sum which he now spends for bridge tolls, going to and from his work at the G. M. Standifer shipyard in Vancouver. Mr. Woodford qualified for the rank of Reserve Military Aviator while at Kelly Field, having spent a hundred and eleven hours in the air.

L. F. Heuperman, formerly City Engineer of Marshfield, and H. G. Aspland, formerly city engineer of Camas, Wash., were in the Canadian army, barely missing a chance to go to Siberia. Mr. Heupermann is in Hood River where he owns some property, and Mr. Aspland is engineer for the Foundation Co. at Victoria, B. C.

C. A. Merriam was Constructing Quartermaster at Tullytown, Pa. He is now located at the Worcester Building in the office of A. E. Doyle, architect.

G. S. Vincent appeared among us a few days ago wearing the gold bars of a second lieutenant, and the castle of the engineers, having won these honors in the eight months of service after being called in the selective draft.

Mr. Vincent will visit at the home of his parents in Sherwood, Oregon, for a while, and if no local corporation has the good judgment to offer him employment, he will return to Ft. Wayne, Ind., where he was employed by the Pennsylvania Railroad before he entered the service of the Government.

### REGISTRATION OF PROFESSIONAL ENGINEERS

After having been successfully killed in the Senate, House Bill 263 bobbed up serenely, and only a little the worse for having been sent to the discard, was passed by both houses just before the legislature adjourned.

By the terms of the bill a board of nine examining engineers is to be appointed by the Governor. This board will register without examination all professional engineers who show before January 1, 1920, that they have the proper qualifications. After that time, any one wishing to practice professional engineering in the State of Oregon must pass an examination for registration.

### PUBLICATIONS OF THE U. S. COAST AND GEODETIC SURVEY

The Acting Superintendent of the U. S. Coast and Geodetic Survey has asked for a copy of the membership list of the Oregon Society of Engineers in order that he may send announcements of the publications of his bureau to the members.

There are many publications issued by this, and other government departments which are of value to engineers, many of which may be secured for the asking or for a small price.

### BRIDGE ENGINEERS WANTED

The United States Civil Service Commission, Washington, D. C., will receive applications for the position of Senior Highway Bridge Engineer to, and including the first of April.

The entrance salaries range from \$2400.00 to \$3400.00 a year.

Applicants must show that they have had at least six years of preliminary engineering experience, or that they are graduates in civil engineering from a recognized college, and must have had four years of responsible bridge engineering, of which two years must have been on highway bridges.

Ask at the Post Office for Form 1312, giving the title of the examination: "Senior Highway Bridge Engineer (Male), \$2400-\$3400."

John W. Green writes from Ajo, Arizona, that he is engineer on construction for the New Cornelia Copper Co. at that place.

Mr. Green was recently advanced from the grade of Junior to Active member of the Oregon Society of Engineers, and has the right idea of advertising, for he is asking how to become possessed of a badge. And this is what he is being told. Just mail a check for \$1.80 to the Oregon Society of Engineers, Box 973, Portland, Oregon, and the badge will be sent forthwith. This price includes the margin to cover the high cost of living as well as the war tax on jewelry, but the Society pays the postage.

Maj. C. S. Noble, who resigned his position with the Oregon State Highway Department last fall to enter Y.

M. C. A. work in France, died recently in Tours.

Major Noble had been a member of the Oregon Society for five years.

He was Assistant Engineer on the Fifth of Forth Bridge in Scotland. Later he came to the United States, and entered the service of the Seaboard Air Line, where he had charge of important work in Florida.

He was a captain in a Florida regiment in the Spanish War, and later, major in the Florida militia.

Before entering the State Highway Department of Oregon, he was for a time, City Engineer of Oregon City.

### FOR SALE.

Electric Blue Print Machine, continuous, 54 inches wide. 110 volt A. C. arc lamps. To be sold at so low a price that you can't afford to wait for the sun. Orrin E. Stanley, 2601 49th St. S. E., Portland, Oregon.

Encyclopedia of Civil Engineering, 8 volumes. Brand new. These books tell you what you want to know in easily understandable English. The first Twelve Dollar Check gets the set. Orrin E. Stanley, 2601 49th St. S. E., Portland, Ore.

### APPLICATIONS FOR MEMBERSHIP

The following are abstracts from applications for membership in the Oregon Society of Engineers, now on file in the Secretary's office.

If no objections to the admission of these applicants are received within twenty days from the publication of this notice, the Executive Board will, upon recommendation of the Membership Committee, proceed to ballot upon these names.

**ALLEN, CLAY M., U. S. Forest Service, Portland, Oregon.** (Age 44, Born Mechanicsburg, Illinois) (1896-98 Kansas State University Elec. Eng., also two years at Armour Inst. of Tech. Special Course in Elec. Eng., 1898 to 1900. No degree on account of failure of health). 1900-02 Contracting Elct. Inst., Hutchinson, Kan.; 1902-04 Shop work etc, Tel. Sw. Bd. Const. and installation etc.; P. T. & T. Co.; 1904-12 in charge of outside overhead const. and M't'ce. P. T. & T. Co., Spokane, Wash. 1916 to date Telephone Engineer, U. S. Forest Service in Dist. 6.

Endorsed by W. T. Andrews and Philip H. Dater.

**BARNES, CLYDE E., 808 Pottcock Bld., Portland, Oregon.** (Age 29, Born Duluth, Minnesota.) (Duluth Central High School 1904-08. U. S. Naval Gas Engine School. Columbia University, N. Y. 1917-18.) 1909-12 Mech. Draftsman O. W. R. & N. Co.; 1912-15 Fuel Inspector O. W. R. R. & N.

Co.; 1915-May 1916 Mech. Draftsman O. W. R. R. & N. Co.; May 1916-Feb. 1917, Mech. Draftsman S. P. & S. Ry.; Feb. 1917-Nov. 1917, Mech. Eng. S. P. & S. Ry. Nov. 1917-Dec. 1918 Chief Machinist Mate U. S. N. Dec. 1918 to date Mech. Eng. S. P. & S. Ry.

Endorsed by Albert J. Witchel and John Dickson.

**BEACH, FRED S.,** 1193 East 28th St. N., Portland, Oregon. (Age 39, Born Rockford Iowa) (This data on O. S. E. Records previous to 1916) Feb to May 1916, Detail Draftsman with Baldwin Locomotive Works, Phila., Pa.; June to Dec. 1916, Sherwin Williams Co., Kensington, Ill. Dec. 1916-Sept. 1918, Tool Designer Deering works International Harvester Co., Chicago, Ill. Sept. 1918 to date with N. W. Steel Co., Portland, Oregon.

Endorsed by Henry F. Blood and Orrin E. Stanley.

**BENNETT, O. I.,** 1012 Woodward Ave., Portland, Oregon. (Age 37, Born Michigan.) (Regular high school course.) June 1899-Nov. 1902 General R. R. Station work mostly telegraphy. Mar. 1903-Oct. 1911 Steam and electrical operation in central power stations, Portland, Oregon. Oct. 1911-July 1918 Chief engineer of Wilcox Bldg. and Stevens Bldg., and subsequently, superintendent of the same. July 1918 entered employ of Coast Shipbuilding Co., Portland, Oregon as Machinery Installation Foreman.

Endorsed by Nelson E. Likins, and A. D. Vance.

**BURTON, EDWIN K.,** Marshfield, Oregon. (Age 32, Born Marselles, Illinois) (Salem high school 1905. I. C. S. course in Civil Engineering) March 1908 to Jan 1917 in City Engineer's office, Portland, Ore., computing, drafting and field work. Jan. 1917 Sept. 1918, assistant City Engineer, Marshfield, Ore. Sept 1918 to Jan 1919, Acting City Engineer, Marshfield, Oregon. Jan. 1919 to date, City Engineer, Marshfield, Oregon.

Endorsed by Albert B. Gidley and Chas. F. Fisher.

**DANTOFF, JACOB D.,** 409 Jackson St., Portland, Oregon. (Age 41, Born Russia) (University of Oregon 2 years, 1900-1902, University of California 2 years, 1902-1905) 1911-1914 Morgan Fledner & Boyse, Portland, Ore.; 1914-1917 Independent practice. 1917-1919 Northwest Steel Co., position held as Architect and Engineer.

Endorsed by Henry F. Blood and Orrin E. Stanley.

**HANNAM, JESSE,** 418 City Hall, Portland, Oregon. (Born Cowes, Isle of Wight, England.) Assistant Engineer in office of City Engineer, Portland, Oregon, from 1898 to date.

Endorsed by C. F. Fisher and Orrin E. Stanley.

**JACKSON, R. E.,** 528 Stephens St., Portland, Ore. (Age 31, Born Chicago) (Ohio Northern University 1908 1909) 1906 Frank Alley, Map Draftsman. Oct. 1906 Apr. 1907 A. & C. R. R. Field Draftsman. Apr. 1907-Dec. 1907 B. R. & N. R. R. Field Draftsman. 1910-1911, P. R. & N. R. R. Draftsman and Res. Engr. 1912-1915, Private work-townsite platting etc. 1916, Oregon Short Line, Inst. man. 1917-1918, Gales

Creek & Wilson R. R. Res. Engr.

Endorsed by C. F. Fisher and Orrin E. Stanley.

**JOSLYN, DON D.,** Jordan Valley, Oregon. (Age 31, Born Deer Lodge, Montana.) (College of Montana, University of Minnesota Engineering School: Apprenticeship served under Wm. K. Trippett, C. E. City Engineer, Whitefish, Mont. 3 yr. School yrs. in engineering, 1907-08-09-10. Apprenticeship yrs., 1908-09-10.) 1906 Asst. Deputy, U. S. Deputy Surveyor; Employed by H. B. Davis, Pamona, Cal. 1907 Asst. Deputy U. S. Surveyor; employed by Trippett & McLain, Deer Lodge, Mont. Asst. U. S. Deputy Mineral Surveyor, employed by E. R. McLain, Deer Lodge, Mont. 1908 Asst. U. S. Deputy Surveyor, employed by W. K. Trippett Whitefish, Mont. 1906 U. S. Deputy Surveyor, employed by W. K. Trippett, Whitefish, Mont. 1910 U. S. Deputy Surveyor, employed by W. K. Trippett, Whitefish, Mont. 1910 U. S. Surveyor, Dept. of Interior U. S. G. L. O. to 1912, total time 6 months. 1912 to date private practice in Jordan Valley, Ore. 1913 to date City Engineer, Jordan Valley, Oregon. 1915 to date, manager Jordan Valley Engineering & Land Co.

Endorsed by John Dubuis and Orrin E. Stanley.

**LUCE, WILLIAM MONMONIER,** 1536 East Burnside Street, Portland, Oregon. (Age 35, Born Heraldsburg, California) (B. S. University of California, 1906.) Sept.-Dec. 1906, Instrumentman for Scofield Engineering Co. on Mare Island Dry Dock in charge of pile driving. Dec. 1906-Oct. 1907 Engineer and Supt. Construction for Scofield Co. & Selfridge Co. on reinforced concrete construction in San Francisco. Jan. 1908 Jan. 1910, Supt. of Construction for Pacific Fruit Express Co. on heavy reinforced concrete construction at Roseville and Colton, California. April 1910 to Aug. 1913, Assistant Engineer to Wm. R. King, Consulting Hydraulic Engineer, engaged in making reports, valuations, designs, surveys and development, of water power and irrigation works, in Oregon and Washington, with headquarters in Portland. Aug. 1913 to Jan. 1915, Valuation Engineer on Portland Ry. Light & Power Co., and Montana Power Co. valuations. Sept 1916 to Sept. 1918, Supt. of operation Plaster Mill and Quarry and Keen Cement Mill at Mound House, Nevada for Pacific Portland Cement Co. Sept. 1918 to date, detail draftsman on steel ship construction, for Northwest Steel Co.

Endorsed by Henry F. Blood, and Orrin E. Stanley.

**MOORE, RALPH B.,** 1774 Belmont St., Portland, Oregon. (Age 30, Born North Yakima.) (Oregon Agricultural College, 1906, 1907, 1908, 1909. Engineering home study of Hull Designing.) 1910-1911 Hull Draftsman, at Bremerton Navy Yard. 1912-1913, Northern Pacific Ry. at Tacoma, Wash. Civil Engineering. Summer months of 1914, 1915, 1916 Classifying lands and cruising for U. S. Govt. 1917 to date Hull Draftsman for Northwest Steel Co.

Endorsed by Henry F. Blood and Orrin E. Stanley.

**NICHOLAS, W. C., 715 Oregonian Bldg., Portland Oregon.** (Age 32, Born Portland, Ore.) (University of Oregon (B. A.) 1906-1910) 1907 Instrumentman and Locating Engineer for Power Site on Santiam River. Instrumentman for Elliot & Scoggin 1908. 1909 Instrumentman for J. A. McQuinn. 1910, Instrumentman for D. W. Taylor. 1910-1915, Instrumentman for City of Portland. 1915, Instrumentman for Marshall Bros.

Endorsed by O. A. Kratz and H. G. Richardson.

**NUNN, DAVID SUTTON, 1146 E. 21st St. N., Portland, Oregon.** (Age 38, Born England) (English High School; International Correspondence Schools, Steam-Electric Engineering Course.) 1900-1903 Student, and later Assistant testing engineer Minneapolis Engine and Thresher Co, Hopkins, Minnesota. 1903-1908, Engineering dept American-Abell Engine & Thresher Co., Winnipeg, Canada. 1914-1917, City Engineer, Condon, Oregon. 1919, Electrical Engineer.

Endorsed by W. R. Stokes and John S. Beall.

**PERRY, ARTHUR C. F., 631 N. 3rd St., Grants Pass, Ore.** (Age 35, Born Short Hills, N. J.) (One year Arts College, Columbia University; four years Engineering School, Columbia University, N. Y., graduating with degree of C. E. June 1908 Dec. 1912 to Oct. 1916, graduate and scientific research work Cornell University Agr. College.) Apr 1907-Sept. 1907, Rodman on railroad maintenance of way engineering on Iowa division C. R. I. & P. R. R., headquarters Des Moines, Ia. Sept. 1909-May 1910, Transitman on irrigation topographic survey in Wyoming and Colorado, headquarters, Laramie, Wyo. June 1910 Nov. 1910, chief of party and draftsman on irrigation survey in Oregon, in employ of Messrs. Whistler and Stubblefield, Portland, Oregon. Oct. 1911-Mar. 1912, Draftsman on highway engineering survey at Wilmington Del., with Coleman DuPont. Apr. 1912 to Oct. 1912, chief of party and transitman on water-power plant survey on Delaware River, N. Y., N. J. and Penn. for N. Y. city engineering firm. Oct. 1916-July 1918, draftsman and in business office of Structural Steel Co., in N. Y. city. Aug. 1918-Jan. 1919 Irrigation engineering in Oregon associated with John Dubuls, Grants Pass.

Endorsed by John Dubuls and Orrin E. Stanley.

**SANDEBERG, EDWARD, 74 E. 24th St. N., Portland, Oregon.** (Age 48, Born Sweden) (Boras, Sweden, 3 years) 1891-1897 U. S. Engineers, 1897-1899 Mining, Alaska. 1899-1903 U. S. Engineers, 1908-1910 City Engr. Office, Portland, Ore. 1910-1919 Contracting.

Endorsed by C. F. Fisher and Orrin E. Stanley.

**STEVENS, KINTON B., 1443 Mississippi Ave., Portland, Ore.** (Age 35, Born Santa Barbara, Calif.) (B. S. Mechanical Engineering, Michigan Agricultural College, 1906) 1906, Draftsman, MacDonald Engineering Co., Chicago; 1907-08, Student Apprentice, Platt Iron Works, Dayton, Ohio; 1908-10, Mine Surveyor, Trade Dollar Mining Co., Silver City, Idaho; 1911, Resident Engineer, Swan Falls Power Co., Murphy, Idaho; 1912, Special study in Structural Engineering, Michigan Agricultural College; 1912-13, Draftsman, Portland Railway; 1913-16, Chief Engineer, Portland Woolen Mills; 1917-18, Draftsman, Albina Engine Co.; 1918, Salesman, H. M. H. Electric Co.; 1918-19, Mechanical Engineer, Warren Const. Co. Endorsed by J. V. Gongwer and O. A. Kratz.

**STIGER, LEONARD R., 315 E. 49th St. S., Portland, Oregon.** (Age 23, Born Portland, Oregon.) (Correspondence and home study, specializing in structural engineering of mill building, highway bridges and reinforced concrete work.) Mar. 1911-Mar. 1914, June 1914-Jan. 1916, April 1916-Oct. 1916, July 1918 to date Northwest Steel Co., Portland, Ore. Structural Drafting. Jan. 1916-Mar. 1916, Oct. 1916-July 1917, Tacoma Smelting Co., Tacoma, Wn; (Structural and Mech. Drafting) Aug. 1917-Sept. 1917, Supple & Ballin Ship-bld'g Corp., Portland, Ore. (Mechanical Drafting) Sept. 1917-Oct. 1917, Commission of Public Docks, Portland, Ore. (Structural Drafting) Oct. 1917-Feb. 1918, Garfield Smelting Co., Garfield, Utah. (Structural and Mech. Drafting).

Endorsed by Henry F. Blood and Orrin E. Stanley.

**WATROUS, R. W., 368 East 15th Street, N., Portland, Oregon.** (Age 29, Born St. Paul, Minn.) (1907-1909 Univ. of Minn., Mechanical Engineering; 1909-1911, Cornell University, Electrical Engineering) Summer 1910, Electrical Helper, Cascade Tunnel, Washington; Summer 1911, Electrical Inspector St. Paul Gas Light Co.; Sept. 1911-June 1914, Instrumentman, Oregon Electric Railway (Railway location and construction work); Aug. 1914-Dec. 1916, Recorder on field party on railway valuation work of Interstate Commerce Commission in various western states; June 1917-Sept. 1917, Inspector and Instrumentman for North Coast Power Co., Vancouver, Wash.; Oct. 1917-April 1918, Estimator for Southern Pacific Co., Engineering Department, Portland; April 1918, to date Assistant Engineer G. M. Standifer Construction Corporation, Vancouver, Wash., Shipyard construction and maintenance.

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APR 30 1919

# BULLETIN

No. 33

PORTLAND, OREGON

April, 1919

**FRIDAY EVENING, APRIL 25th**

at Turner Hall

Thirteenth Street, near Jefferson

**The Oregon Society of Engineers**

Will hold one of its  
Rousing Meetings

Mr. G. C. Wells

will give his illustrated lecture on his  
"Engineering and Exploration Experiences in the  
Malay Peninsula"

Where, he assures us, there are stranger people, rarer birds, and more disagreeable conditions, than are found in the "Peninsula District" of Portland.

There will be music and refreshments, and the ever-present discussion of the "Economic Status of the Engineer."

Come prepared to enjoy yourself.

Orrin E. Stanley, Secretary.

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*"The power of co-operation is man's highest manifestation of intelligence and wisdom."—ELBERT HUBBARD.*

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**ENGINEERING MEETINGS**

There has been unusual activity among engineering organizations in Portland during the last month.

First of all, the Oregon Society of Engineers had one of the "rousingest" meetings of its history at Turner Hall on March 1, when about eighty engineers gathered for a general good time and had it.

The engineers won a bowling match with the architects; they discussed the matter of compensation, and every one believes about what he did before going to the meeting; they sung whether they knew the words or tune, or were totally ignorant of musical values, and they seemed to enjoy hearing themselves; they ate and drank such things as the program committee provided, and no headaches were reported the next day, and they played cards and pool and visited until some time after they should normally have been in bed, but then, you know, it was such a novel experience to see a group of Portland engineers loosen up and act partly human in company with other engineers that it was worth missing some sleep to witness.

Mr. N. L. Bowers of San Francisco put a lot of life into the meeting with his enthusiastic leading of the singing, and it is possible that the result of his having been with us will be a lasting one.

Mr. Ridell, who has been making investigations for the Underground Water Resources branch of the U. S. Geological Survey gave a very interesting explanation of the work and its results in furnishing water for the semi-arid regions.

Then there arose a wide divergence of opinion as to whether engineers should or should not join the American Federation of Labor. Some argued that a few extra dollars would feel more comfortable than the large amount of professional dignity and prestige that we now enjoy, while others urged that engineers should

not lower their standing by affiliating with men who make twice as much by working half as hard.

Every one who attended this meeting is hoping that the Program Committee will not forget that we really enjoyed the evening and are willing to repeat the experience as soon as convenient.

Besides this rousing meeting of our own society, the engineers employed by the three large railroad companies entering Portland met for organization as a chapter of the American Association of Engineers. About fifty-five names were signed to the petition for a charter at this place, and the local chapter looks like it would be a wide-awake organization.

The objects of this Association are to promote the social and economical welfare of its members, and by the way its committee is taking hold of the question of salaries for engineers employed by the railroads, it looks as though something of value to all engineers might be accomplished.

Mr. Marsh of the S. P. & S. Co. is temporary chairman and Mr. Barnes of the S. P. Co. is temporary secretary.

Local No. 23 of the International Federation of Draftsmen's unions is a lively youngster, not much more than two months old, but making itself felt in this neighborhood.

The young men who are at the head of Local No. 23 have a notion that the man who designs a piece of work should be paid as much as one of the workmen engaged on its construction.

Are they right?

**The President's Address****FELLOW MEMBERS OF THE OREGON SOCIETY OF ENGINEERS:**

It has in the past been customary for the President to deliver an annual address. I am going to follow the rule in the matter of the address, but violate precedents in making it in writing rather than verbal. I do this for the reason that I can reach in this way all of the members rather than a part of them, and because the subject is one for serious consideration and deliberate (but not dilatory) action. Ideas can be developed prior to our next meeting and the entire time devoted to discussion. The subject is:

**SHALL THE OBJECTS AND ACTIVITIES OF THE OREGON SOCIETY OF ENGINEERS BE CHANGED?**

The date of organization of the Oregon Society of Engineers is Feb. 6, 1911. At the time the Society was founded there

were, from my best information, only two other, formally constituted, technical societies in the State. These were the local branch of the American Institute of Electrical Engineers, and the Architect's Club. The Oregon Society of Engineers was patterned after similar societies then existent in other states. Since the founders felt the need of a forum for discussion of technical subjects, the principal activity of the Society was conceived to be its meetings. The motive was primarily educational. With a few differences in membership requirements and constitutional provisions the Oregon Society was a small edition of one of the national engineering societies, which by the way, were at that time national in membership only, and really local in their influence.

In the constitution we find the objects of the Society stated as follows:

Sec. 1. The object of this Society shall be to advance the science and practice of Engineering and Architecture; to maintain a professional standard among its members; and to organize engineering opinion in matters of public interest.

Sec. 2. The means to be employed for the above ends shall be: periodical meetings, for the presentation and discussion of professional papers, and for the promotion of social and professional intercourse among its members; also the publication of such selected papers as may be deemed desirable.

The first section sets forth the abstract aims, and the second the machinery for attaining them. It is notable that the stated objects are entirely without self interest. The inference is that the science and practice of engineering is not up to the mark and needs advancing, and that public interests need protection, which is no doubt true. The diagnosis is entirely of engineers themselves and the remedies prescribed are internal. Periodic meetings, the presentation and discussion of papers, and their publication in one form or another; these with an occasional social meeting have been the substance of Oregon Society activities for the eight years of its existence.

This statement of the limitations of the Society's work must in no way be implied as a criticism. What has been attempted has been well done. Under a succession of able officers there have been held a great many worth-while meetings. The publications of the Society have been high grade. However, while the Oregon Society has moved along in its originally defined course, external conditions have undergone material changes, and we are now facing an entirely different situation. Can we continue and grow in strength as a society with the old objects and the old methods? I believe we cannot, and the purpose of this discourse is to place before the membership the problems which we must meet, and to suggest for discussion and modification, but likewise I hope for early action, certain constructive changes which the Society should undergo.

## DUPLICATION OF SOCIETIES

As against two technical organizations in the local field in the year 1911, there are at present eight:

- Oregon Society of Engineers.
- American Society of Civil Engineers, Portland Chapter.
- American Institute of Electrical Engineers, Portland Chapter.
- American Society of Mechanical Engineers, Portland Chapter.
- American Institute of Architects, Portland Chapter.
- American Chemical Society, Portland Chapter.
- Northwest Society of Highway Engineers.

Draftman's Union Local No. 23.

A ninth, a Society of Railway Engineers, is also said to be contemplated.

There is hardly a member of the Oregon Society who is not eligible to one of the others. Some actually belong to three or four, and the sum total of dues to be paid, meetings to be attended and functions to be performed, if one is to be a dutiful member of all, becomes a problem. We must admit and face the fact that the Oregon Society has suffered from the operation of the other bodies. The National Societies offer higher professional honors, the specialized groups present discussions of perhaps greater interest to the individual, and the Union promises particular pecuniary benefits. What, then, is to be the justification for our existence? Why should we continue the struggle, if we must struggle in order not to be submerged?

This is a period of reconstruction and readjustment. Can we make the Oregon Society of Engineers a necessary factor in the scheme of federation of engineers? Can we attain the ultimate goal of becoming the all-inclusive, all-helping, get-together organization of Oregon Engineers? I believe that we can. We must, however, undergo a major operation. We must part with some of our old appendices, and rejuvenate our internal organs if we are going to pass the test. We must revise and revise fundamentally the objects for our existence, our methods of operation, and furthermore acquire a new enthusiasm and vigor, without which real progress is impossible.

## A SOCIETY FOR SERVICE

Our first aim should be for individuality as a Society. Work which other organizations can do better than ourselves should be relinquished to them. That which we are peculiarly fitted to handle, we should claim, and carry out exclusively as our own.

In the past we have made the educational feature foremost. In the future let us leave the improvement of the technical man's intellect to the National bodies, who with their talent and their publications can surpass us in every line. Let us make the Oregon Society of Engineers one of intimate association, co-operation and material service to the individual. Let us adopt a special line of work which no other local body is attempting to perform, and make the Oregon Society the

guardian of the business interests of the engineer.

When we get away from idealism and begin to talk of such earthly things as the business interests of engineers, some will at once prick up their ears and decry "unionism." It is in fact unionism. The founders of the country asserted that "in union there is strength," and only recently have some people grown ashamed of the word. Federation of engineers to look out for their own material welfare does not however in any way involve affiliation with existing labor union organizations. While I favor the unionization of draftsmen now under way, I believe it impractical and inexpedient for engineers generally to follow the same course. An example of an organization for the business interests of its members is the "Greater Portland Association" of the smaller retail merchants. This has never been called a union, but no union could be more active in furthering the interests of its members. Upon reflection it will be found that almost every specialized line of trade or business is represented by a militant organization willing to go the limit in protecting its own members. Even the other professions such as medicine, law, and dentistry devote their associations more to economic betterment than to educational uplift. Only in our own branch do we find a feeling among a few that collective action in matters material may deprive us of a true professional standing.

In a scheme of service and co-operation, our organization has advantages possessed by none of the local Chapters or specialized Societies. In numbers there is strength. Co-operation to be effective requires numbers who cannot be enlisted in any but an all-inclusive technical body such as the Oregon Society. Service of the kinds we should give costs money, and again we must have numbers. Ours is and can be the largest organization of Oregon technical men.

#### SOCIAL ACTIVITIES.

For the Society to secure real co-operation among its members the first necessity is that we get better acquainted. In looking through the Directory of our membership I am surprised to find how few I really know. The reason is apparent. In the past our meetings have been largely in the library in an atmosphere of cold formality and even if not given the tip of the jaltor, at the end of the session there was nothing to do but go home. Our last meeting at Turner Hall was a notable exception to the rule and it is going to be the first of a series of similar meetings at which we must put the soft pedal on technical discussion and develop good fellowship and human interest.

We must have a headquarters. If we can now or later acquire Club facilities, it will be splendid and will supply a demand expressed by many of its members. If we cannot have clubrooms in the full sense we must at least have a central office with desks, chairs, telephone, and periodicals, a rendezvous for out of town engineers, a place to meet appointments and hold committee ses-

sions and perhaps to hold the smaller meetings of the Society.

With a headquarters established, one of the first natural activities will be to put on a substantial basis our employment department. This cannot be made a thorough success if handled as at present, a sideline of the Secretary's office. A downtown office is essential. With an office at which applications can be filled out, and a properly devised filing system, the clerical work of conducting an employment department will be simple and will require only a small portion of one person's time.

With a fixed headquarters and assembly place, the relation of the Oregon Society to the various specialized technical Societies would be established. These bodies would use the rooms for their meetings, having certain nights set aside for their exclusive proprietorship of the quarters.

Furthermore, it might be found that the existence of a recognized engineers' headquarters might fit in very nicely with the Engineers' Registration Act now a part of the Oregon law. There will be necessary a paid Secretary to the registration board and office facilities, which can possibly be worked out in connection with or adjacent to the Society rooms, resulting in convenience and saving of expense to both bodies.

#### COMPENSATION.

Whether you use the words fees, salaries, wages, or whatnot, almost all will agree that the engineer is underpaid, considering his responsibilities and the value of his services. How shall we go about to secure greater appreciation socially and economically? This is the kernel of the whole thing when we begin to consider the business interests of engineers. We cannot resort to strikes or other crude methods of enforcing what we see as our rights. Nevertheless, we must assert ourselves if we are to gain recognition. I personally believe that with organization and with initiation we can gain the desired ends without using other means than reasoning and diplomacy.

Before we can begin to convince the public, we must satisfy ourselves as to what we are worth. We must establish a schedule of fees or salaries for different classes of work. Absolute standardization is impossible and undesirable, since the classes of engineering work are so many and the responsibilities and capabilities of individuals are so varied. Within limitations it is feasible to define minimum salaries for almost all branches of engineering, as was done by a recent conference in the case of the railroad engineers. The promulgation of such schedules and the active educational, argumentative, and if necessary, political work to secure their adoption, will be one of the most important lines of work for a business organization of Engineers.

In matters of compensation, the employed engineers should and can work in direct harmony with those who as consulting or chief engineers may be regarded as employers. The engineer-employer, unless he be exceedingly narrow, will

favor adequate salaries for his subordinates, providing that he can make his own charges correspondingly adequate. There must be no ruinous cutting of fees or price competition. The majority of engineer-employers will give hearty support to a general increase of salary rates, but will ask in return a measure of corresponding support from the employee.

#### THE AMERICAN ASSOCIATION.

Some will notice a similarity between my views and those which for the last two or three years have been advanced by the American Association of Engineers. I admit the charge. I confess the greatest admiration for the work of the Association. Over a year ago a Committee of this Society looked into the question of affiliation with the American Association. Following their report the proposition was decided adversely, not by reason of any lack of sympathy between ourselves and the other organization, but because affiliation would under these existing rules, require a very large increase of our dues and the sending of the bulk of the money back to the parent Association. Whenever any scheme may be worked out by which we can affiliate and yet retain the greater portion of our income to pay local Society expenses, I shall favor such action.

Joining our Society with the American Association of Engineers would give us the benefit of a live and readable publication, and would give us the support of a large body of engineers on national, and indirectly, on local matters. As regards the employment feature, I doubt if the Association would give us much benefit, and believe we would still have to conduct our own employment department.

#### TIME FOR ACTION.

It has been repeatedly stated that the recent war was won by engineers. It certainly has awakened engineers to a new sense of their own worth and responsibilities. The columns of the recent engineering periodicals reflect the spirit of the present time, and show that engineers are beginning to take stock of themselves, and are finding that they are a very essential factor in public affairs in peace as in war. That they have not received sufficient recognition either socially or economically is perhaps their own fault, at least there is evident a new disposition to assert themselves and to demand their just dues.

I favor a reorganization of the Oregon Society of Engineers. I see no occasion for changing the name, as some suggest, for that has been honorably maintained in the past, and correctly describes what we are. I see no need for completely rewording our constitution. We have a primary system for elections and a more advanced and democratic form of organization than most other Societies. I do feel that the objects, aspirations, and activities should be materially changed if we are neither to detract from nor lose strength to the other local Societies, and if we are to become the distinctly Oregon Society of Engineers.

As a new statement of the objects of the Society, I suggest the following:

Sec. 1. The objects of this Society shall be to advance the practice of applied science, to cultivate a spirit of fellowship, unity, and mutual support among technical men of all branches, to develop among the members a knowledge of their civic responsibilities, and to create a public appreciation of the social and economic worth of the profession.

Sec. 2. The means to be employed for the above ends shall be periodic meetings for the presentation of technical subjects, for discussion of ideals and aspirations, and for social recreation; also the conducting of club and meeting rooms; the issuance of publications and any other means which in the opinion of a majority of the members shall best secure the desired results.

It is the function of the officers of a Society to direct and carry on the work of the organization after the wishes of its members have become known. It is not for them to shirk responsibility, but neither should they assume undue responsibility. This discourse has been prepared for the purpose of arousing rather than influencing opinion. The time is opportune. The questions before us are the most important that we have ever faced. In order to secure ideas and opinions from all, there is enclosed with this number of the Bulletin a questionnaire, which all are asked to return promptly. A space is provided for signature. You may return it signed or unsigned, as you prefer. If the space is not sufficient for your ideas, spread them on other sheets; they are welcome. Let us agree, and quickly, on a way to make the Oregon Society of Engineers the vital factor among Oregon technical men.

JOHN W. CUNNINGHAM,  
President.

#### PUBLIC SPEAKING FOR ENGINEERS

Mr. Bennett reports progress in the matter of his public speaking class, and hopes to have a select group of engineers trained to appear before audiences and to give the impression that they represent an intelligent body of men. It is going to take quite a considerable amount of self sacrifice on the part of these men to give their time to the work, but there are a few who feel that even though they do not reap any great amount of profit directly, they will be doing a good turn for the profession. If you do not think so, you will have to hurry up and head them off before they have gotten under way, for after they get started, there is no telling where they will finish.

#### N. W. SOC. OF HIGHWAY ENGINEERS

More than fifty engineers met in Portland for the quarterly dinner and convention of the North West Society of High-

way Engineers Saturday evening, March 12.

They report a very interesting meeting, one of the numbers on the program being a talk on engineering work in the jungles of the Malay peninsula by Mr. G. C. Wells.

#### CO-OPERATION AMONG LOCAL ENGINEERS

About twenty-five engineers representing the Oregon Society of Engineers and the various national technical societies having members in Portland, met at the Arlington Club, on March 25, upon invitation of B. C. Ball, President of the Willamette Iron and Steel Co. to meet Calvin W. Rice, Secretary of the American Society of Mechanical Engineers.

Mr. Rice was on a tour of the country in the interests of closer co-operation of the engineers in matters of local interest. He suggested that the Oregon Society of Engineers be so expanded as to include (if necessary in a special grade) the members of national engineering societies without further formality than the admission to the national society. This, he thought, might be made possible if the national organizations would turn back to the local branches a portion of the dues received from the members, for the purposes of maintaining the local chapters. Then this money might be all put into one fund for the operation of a big local engineering society, which would be truly representative of the engineers of the city.

Some objection on the part of members of national societies to belonging to a society which has requirements for admission as low as those of the Oregon Society of Engineers was raised, and the suggestion was then made that a council of engineers be formed consisting of representatives from each of the engineering societies having members in Portland.

When the meeting adjourned, it was with the understanding that Mr. Ball should call together representatives from these interested societies at an early date for the purpose of further discussion of plans for co-operation.

#### APPLICATION FOR MEMBERSHIP

The following application for membership is on file in the Secretary's office. If no objections to the admission of this applicant are received by the Executive Board within twenty days after this application, the Board will, upon recommendation of the Membership Committee, ballot on this application.

**HOUGHTALING, CHESTER A.**, 509-10 Henry Building, Portland, Oregon. (Age 36. Born Cleveland, Ohio.) (High school and two years Lewis Institute, Chicago. Structural Engineering.) 1899-1901 steel detailing with Purdy and Henderson on

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#### NEW TECHNICAL BOOKS IN THE PUBLIC LIBRARY

In this number of the Bulletin is given a list of the books of interest to engineers and allied professions which have been added to the Technical Room of the Public Library during the year 1918.

About the time that the Library moved into its new building the Library Committee of the Oregon So-

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ciety of Engineers and the Technical Librarian working together, compiled quite a complete catalog of the engineering books on hand at that time. This list was mimeographed on 3x5 inch sheets which were bound into little pamphlets according to subjects, and were furnished to those who desired them. The books which have been secured by the Library Association in the four or five years since this list was prepared have not been catalogued in this handy form, but Miss Fossler assures us that if there is sufficient demand, lists can be prepared to cover the years just before 1918.

Preserve this issue of the Bulletin. It will be valuable for reference.

### ENGINEERING

- Burton—Engineers' and Shipbuilders' accounts, 1911. 657 B98  
California Engineer Dept. Bulletin, 1915-17. R620.5 C14  
Engineering News-Record—Engineer in Field and Office, 1918. 620 E57  
Engineers' Society of Western Pennsylvania. Charter, By-laws, List of Members, 1917. R620.6 E57  
Hudson—Engineers' Manual, 1917. 620.8 H88  
Illinois Society of Engineers' Annual Report, 1918. R620.6 I29  
Pan-American Scientific Congress 2d, 1915-1916. Engineering, 1917. R620.6 P18  
Goldsmith—Public Works Inspection, 1914. 620 G62  
Taylor—Education of Engineers, 1917. 620.7 T24

### Contracts, Specifications, Costs.

- Gillette—Handbook of Clearing and Grubbing Methods and Cost, 1917. 620.02 G479h  
Gillette—Handbook of Mechanical and Electrical Cost Data, 1918. R620.02 G479m  
Mead—Contracts, Specifications and Engineering Relations, 1916. 620.03 M47

### Engineering English

- Aydelotte—ed. English and Engineering, 1917. 620.7 A97

### Strength of Materials

- Elliott—Elliott's Weights of Steel for Engineers, Architects, Contractors, Builders, Steel Manufacturers and

All Users of Rolled Steel, 1916.

- R691.7 E46  
Slocum & Hancock—Text Book on the Strength of Materials, 1911. 620.1 S63  
Carnegie Steel Company—Standard Specification, 1917. R620.1 C23

### CIVIL ENGINEERING

Howe—Design of Simple Roof Trusses in Wood and Steel, 1912.

- 624.9 H85  
Ketchum—The Design of Walls, Bins, and Grain Elevators, 1911. 624 K42d  
Molitor—Kinetic Theory of Engineering Structures. 624 M72  
Trautwine—New Method of Calculating the Cubic Contents of Excavations and Embankments by the Aid of Diagrams, 1907. 625.1 T77  
Waterbury—Stresses in Structural Steel Angles, with Special Tables, 1917. 624.1 W32  
White & Prentis—Modern Underpinning, 1917. 624.1 W58

### Bridge Engineering

- Derleth—Design of a Railway Bridge Pier, 1907. 624.9 D43  
Howard—Documents Governing the Construction of a Bridge, 1916. 624 H84  
St. Lawrence Bridge Co.—Quebec Bridge, 1918. R624 S14

### Building

- Alt—Mechanical Equipment of School Buildings, 1916. 697 A46  
American Institute of Architects—Structural Service Book, 1918. R690 A51  
Arthur—Estimating Building Costs, 1917. 692.5 A79e  
Dewell—Timber Framing, 1917. 694 D49

- Kinsila—Modern Theatre Construction, 1917. 725.8 K51  
Thompson—Mechanical Equipment of Federal Buildings under the Control of the Treasury Department, 1915. 697 T47

Wright—Greenhouses; Their Construction and Equipment, 1917. 716.3 W95

### Materials of Construction Concrete

- Ekblaw—Farm Concrete, 1917. 693.5 E36  
Fallon—How to Make Concrete Garden Furniture and Accessories, 1917. 693.5 F19

- Hool & Johnson—Concrete Engineers' Handbook, 1918. 693.5 H78c  
 Portland Cement Association, Chicago—Manual Training Course in Concrete, 1916. 693.5 P85  
 Whipple—Concrete Stone Manufacture, 1918. 691.3 W57
- Lumber and Forestry**  
 A B C Lumber Trade Directory and Year Book, 1916-18. R674 All  
 Boerker—Our National Forests, 1918. 634.9 B67  
 Ferguson—Farm Forestry, 1916. 634.9 F35  
 Kerr—Retail Lumber Sheds and Sales Equipment, 1917. 674 K41  
 Lewis—Modern Methods of Waterproofing, 1914. 691 L47m  
 Snow—Wood and Other Organic Structural Materials, 1917. 691.1 S67  
 Southern Pine Association—Southern Yellow Pine, 1918. R620.1 S72  
 Tayler—Preservation of Wood, n.d. 691.1 T23  
 Tiemann—Kiln Drying of Lumber, 1917. 674 T56  
 Wagner—Seasoning of Wood, 1917. 674 W13s  
 Webster—Tree Wounds and Diseases, 1916. 634.9 W37  
 Western Railway and Logging Railroad Directory, 1917. R674 W54  
 Woolsey—French Forests and Forestry, 1917. 634.9 W91
- Heating and Ventilating**  
 Grierson—Some Modern Methods of Ventilation, 1917. 697.9 G84  
 King—Progressive Furnace Heating, 1914. 697.3 K52  
 National Commercial Gas Association—Utilization of Gas Appliances, 1914. 697.6 N27
- Painting**  
 Bates—Motor and Carriage Painting, 1915. 698.1 B32  
 Jennings—Painting by Immersion and by Compressed Air, 1915. 698.1 J54p  
 Kelly—Expert Interior Decorator, 1917. 698 K28ep  
 Sabin—Industrial and Artistic Technology of Paint and Varnish, 1917. 667.6 S112  
 Vanderwalker—Automobile Painting, Carriage and Wagon Painting, 1917. 698.1 V24a  
 Valentine & Co., New York—Motor-car Paint-shop Handbook, 1917. 698.1 V15
- Vanderwalker—Estimates, Costs and Profits, Exterior Painting and Interior Decorating, 1916. 698.1 V24  
 Wright—Interior Decoration for Modern needs, 1917. 747 W94
- Plumbing**  
 Dibble—Elements of Plumbing, 1918. 696 D54  
 Gray—Gray's Plumbing Design and Installation, 1916. 696 G78  
 International Correspondence Schools, Scranton, Pa.—Plumbers and Fitters' Handbook, 1905. 696 I59
- SURVEYING**  
 U. S. Coast and Geodetic Survey—Surveying, 1916. R526.9 U56
- Map Making**  
 Barber—Map Reading and Intelligence Training, 1917. 623.71 B23  
 Barnes—Elements of Military Sketching and Map Reading, 1917. 623.71 B26  
 Carlock—Military Topography and Photography, 1916. 623.71 C28  
 Hutchinson & MacElroy—Manual of Military Maps, 1918. 623.71 H97  
 Macpherson—Text Book of Map Reading and Reconnaissance, 1916. 623.71 M17  
 Map Reading and Panorama Sketching by an Instructor, 1916. 623.71 M29  
 Maxwell—Military map, 1916. 623.71 M46  
 Stuart—Topographical drawing, 1917. 526.9 S92
- HYDRAULIC ENGINEERING**  
**WATER SUPPLY**  
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PHIL EASTERDAY

305 BOARD OF TRADE BLDG.

MARSHALL 1622

## QUESTIONNAIRE

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1. Are you satisfied to have the Oregon Society continue in its past course?

2. *What do you consider the present activities to make the Society a vital moving force among Engineers?*

17. Do you favor increased attention by the Society to social activities among Engineers?

18. Would you attend an Engineers' Dance?

19. Make us a helpful suggestion. Answer in as much detail as you like. Paper is cheap and ideas are wanted.

20. What can the Society do to better serve out of town members?

Sign if you want to.

Signature .....





# BULLETIN

No. 34

PORTLAND, OREGON

May, 1919

## FRIDAY EVE., MAY 23, AT 8 O'CLOCK

Capt. J. W. Morris, former City Engineer of Portland, who has just returned from France, will tell what it means to be an Army Engineer with combatant troops.

Bring your soldier and engineer friends to **TURNER HALL**, 13th Street, near Jefferson to hear him.

If you have no friends come anyhow. You will be well entertained.

**ORRIN E. STANLEY**, Secretary

### :: PERSONALS ::

Frank Bryant writes from San Jose, California, that he is not at present engaged in engineering work and wishes to have his name dropped from the membership list of the Oregon Society of Engineers.

We are reluctantly complying with his request, feeling that the society is losing an energetic member by his resignation.

M. L. Hyde is at Quinook, Oregon, in the employ of the State Highway Department.

Hubert G. Aspland, Engineer with the Foundation Company, Victoria, B. C., writes for information about the Engineers' Registration Law, from which we infer that he is expecting to return to Oregon in the near future.

Mr. Aspland was in the Canadian army for a short time just previous to the signing of the Armistice.

Mr. A. J. Wiley, Consulting Hydraulic Engineer, of Boise, Idaho has been in Portland for two weeks investigating the plan of the City Engineer to dredge a channel from the Columbia River to Columbia Slough at a point above Union Ave. for the purpose of admitting sufficient river water to dilute the sewage from 6000 acres of the city sloping to the north, which is at present without sewerage facilities. Upon the result of his investigations and report depends the carrying out of this project.

### PUBLIC SPEAKING

#### FOR ENGINEERS

The class in public speaking for engineers, which you may have seen mentioned in previous issues of the Bulletin, is now a "going concern." If you have any doubts on this subject, just stroll past the Public Library some Tuesday evening after eight, and note the sounds issuing from the open windows of Room G. Or better still, come right up to this room and join in the work of the class.

Although the class has begun its work, there is room for more, and if too many for one class swarm into the room, arrangements will be made for additional classes. So don't hesitate. You know as well as we do that you need this work, and that there is no better time than right now to begin. The fee is small—\$7.00 for the three months' course of twelve lessons, and with your self-confidence restored by the drill which Mr. Matlock will give you, you will be able to walk up to the boss and convince him that you are worth more than that amount above your present rate, every month. It is worth trying at any rate.

One can hardly expect in a course of this length to become as noted a "platform weevil" as our esteemed contemporary, I. Cobb, but one can always do his best. The results depend upon the individual, and every individual is capable of improvement.

Tuesday evenings at eight. Room G, Library.

## OFFICERS

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 O. A. Kratz, Club-Rooms.

## THE AWAKENING.

All over the world engineers seem to be coming out of their cocoons, stretching their wings and wondering where they are going to get the money to keep them in repair.

Maybe that isn't just the right figure of speech, but if you get the drift of what I am trying to say, we will let the finer points of rhetoric pass for the present.

You have received a copy of the *Monad*—that wide awake paper issued by the American Society of Engineers—and have noted what is being done by that association towards increasing the pay of Railroad Professional Engineers. You have seen that in South Africa and in England the engineers feel that they are not getting a square deal so far as pay concerned, and you have read the schedule of fees adopted by the engineers of the Mahoning Valley, Ohio, and the bonus system adopted by an Ohio country surveyor.

Further than all this, you may, if you have time to give it a thought, acknowledge that you have not been receiving the compensation which you should, considering the work you do and the preparation you have made for the work.

The answer to the question of "How shall we get what belongs to us?" seems to be "Organization." But there

we seem to split. Some favor organization of the engineers, and a reliance upon the honesty of the employers to give what we decide in convention assembled is our due, while others, including our esteemed friend Prof. O. B. Goldman, whose virile letter on this subject will be found in this issue, believe in using "the big stick" and the bigger the better.

A letter from Mr. R. A. Gibson, who until recently was Mechanical Engineer of Plant for the Standifer Steel Yard at Vancouver, gives another view of the subject. Read them both, and think them over.

Portland, Ore., Apr. 4, 1919.

Dear Mr. Stanley:

In view of all that has been concluded about the inadequate compensation of engineers it seems to me there should be no further delay of action to correct the condition. Men so accustomed to dealing with practical things as engineers are, should not lack the common sense to recognize that what they do not demand collectively they will not receive.

No "Professional Dignity" will be sacrificed and respect will be gained thru making the demand for that which is right and the lack of which prevents the proper relation to the responsibilities of life.

Let us be honest with ourselves and with each other. There are but three reasons why any engineer will fail to give loyal support to action toward an improvement;—

First—He is in a position to profit personally, as he supposes, by the average engineer being underpaid.

Second—He thinks he is a little better than most other engineers and able to handle the situation alone to his own satisfaction.

Third—He is purely selfish and is not disposed to be of assistance to fellow workers to mutual advantage.

Surely the Oregon Society of Engineers should be found active along lines of mutual benefit. Surely it is composed of red-blooded MEN. Surely it is alive to the fact that we are in a new era with new things to accomplish.

Let us establish a wage scale and a minimum wage and stick to it. Then the engineer will still be salesman of himself on his own merit and assured at least of no less compensation than the minimum.

By maintaining this as members and working together in these particulars we shall accomplish that which we desire.

Yours for co-operation,  
R. A. GIBSON.

### UNIONIZATION.

Corvallis, May 6, 1919.

Mr. J. W. Cunningham,  
Pres. Ore. Soc. of Engineers,  
Portland.

Sir: After reading your annual address in the last Bulletin, I want to assure you of my full support and co-operation in your proposal to have the Oregon Society the one to look after the business and material interests of engineers.

In regard to the best means to secure proper recognition, my views differ with your own on some points.

Professional engineers are face to face with the problem of just compensation. Nor are they the only ones who are. All over the United States, all over the world, workers and professional men are organizing and organizing solidly and effectively. The professors and instructors at all colleges and universities in the state of Illinois have unionized and so on. It would evidently then, not be incompatible with the impoverished dignity of engineers to unionize if it were to their economic advantage to do so.

But is it? Let us see. At present the average good engineer has to work for the wages paid to the poorest man. That is a matter of common experience. The result is that engineers' wages have been ridiculously low, even to the point of imbecility. Instead of making the average good engineer work for the wages of the poorest, we should make the poor engineer work for the wage of the average good one; we should have competition in quality of services, not in poverty of pay. On this we are all agreed.

In order to enforce a just minimum

scale, it will be absolutely necessary to organize. And if every engineer joined the organization and lived up to his oath, our problem would be solved. But while most employers are perfectly willing to pay a just wage, there are always a few who are unscrupulous, and immoral. If they are permitted to pay less for services than the fair employer they will obtain an unfair advantage over the latter. So with engineers themselves, there will be a small percentage, who will be perfectly willing to betray the best interests of the majority, by not joining the organization or by not living up to their oath. They will "scab" on whatever rate we set. This would be unfair to the decent employer as well as to the decent engineers.

We must therefore be in a position to enforce a uniform minimum scale. But how? The only method that has survived the test of time has been unionization on a national basis and associated with our fellow Americans. That means affiliation with the American Federation of Labor; so that an unruly engineer will find himself excommunicated from the unions of brains, and skill and labor, unable to associate or work with them until his hands are washed, even tho his heart remains dirty, and the unfair employer will be unable to get men to build and operate a plant designed by such an engineer and will have to compete fairly with his competitors. This way and this way only has stood the test of time, the test of some 40 centuries. Is there any hope of solving this problem otherwise?

Some fear that we may be forced out on a strike if we are unionized. That is an error. No one but the engineers themselves can do that. They only have the power. And I doubt whether they ever will for the reason that they are employed individually rather than in mass and could therefor not benefit themselves by such action, tho we always have that as a last resort.

Again some have said, "Why not form an association like doctors and lawyers?" This we cannot do. Doctors and lawyers deal with the unorganized public; we deal with well organized business. The former set their own

price for their services; we have ours set for us by our kaiserliche boss. Doctors and lawyers need only a loose association, we must have a solid powerful union or none. Nothing less will ever be effective.

Some have hoped that the registration law will shut out many from professional engineering. But it will shut out not a single one. It will shut out far less than competition is now doing. Nor do we want to shut out any who may prove good.

Unions are part of our great institution of government in this country today. Unions exist in the law of this land, not only, but in international law as well. Unions have been granted much power—sovereignty in this country because they have been beneficial, because they fought for democracy in this land, when they were the only organized force to oppose industrial autocracy, which was swallowing us too. Men fought and suffered unjust prison sentence to build it up and the blood and honor it has cost, has made it one of our sacred institutions. Democracy was never won nor maintained otherwise.

In the near future, the question of unionization will be put to our vote. Engineers! Let us not only join this great fraternity of Americans, but show them the value of better training by aiding the whole movement for betterment and justice and by furnishing them more able leadership. They admire the professional engineer. Let's

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make good. Get together, so we can heave together. NOW!

Yours for action,  
OTTO B. GOLDMAN.

### LECTURE BY MR. WELLS

Many members of the Oregon Society of Engineers who heard Mr. G. Garveth Wells Friday evening, April 25, in his lecture on "Exploration and Engineering Experiences in the Jungle" said that they had never listened to so interesting a lecture, while all agreed that it was the best thing that had yet been on a program of the Society.

Although Mr. Wells is an engineer and was talking to engineers, his lecture was not in any sense technical, and it was probably enjoyed by these men all the more on that account.

Mr. Wells left on May 3 for Canada to make arrangements for a trip to Malay for the purpose of taking moving pictures for a Canadian company.

### THE QUESTIONNAIRE.

A canvass of the ballots already received is given below so far as the questions can be answered by yes or no.

| Question | Yes | No |
|----------|-----|----|
| 1 .....  | 4   | 10 |
| 2 .....  | —   | —  |
| 3 .....  | 16  | 0  |
| 4 .....  | 14  | 1  |
| 5 .....  | 15  | 1  |
| 6 .....  | 17  | 0  |
| 7 .....  | 1   | 14 |
| 8 .....  | 14  | 2  |
| 9 .....  | 8   | 6  |
| 10 ..... | 14  | 1  |
| 11 ..... | —   | —  |
| 12 ..... | 15  | 2  |
| 13 ..... | 12  | 4  |
| 14 ..... | 12  | 4  |
| 15 ..... | 11  | 3  |
| 16 ..... | 12  | 3  |
| 17 ..... | 15  | 0  |
| 18 ..... | 11  | 2  |

Look over the copy of the Questionnaire enclosed herewith and see how this voices your sentiments, and if you have not yet voted, take a few minutes to register your views. You sure-

ly must have some. Send them along.

Some very good suggestions have been received with the Questionnaires. From an out of town member we have the following:

"I believe your present membership is sufficiently representative of the profession to gain almost any end desired by the Society. I should think that the one main object which the Society should always keep in mind would be to have every eligible man in Oregon a member. To accomplish that end I would say that the first thing to do would be to make every present member proud and glad to be a member, and to keep him interested in the activities of the Society. Most real men are nothing more than grown up boys, regardless of their position or prominence, and for that reason I think your entertainment or social committee should head the list, and be carefully chosen. Make your social activities social in the true sense of the word, for every one present.

It seems to me that the club-room idea is a good one, especially if it can be carried out on an attractive enough scale to make it a dignified advertisement for the Society. By "dignified" I don't mean too many "Keep off the grass" rules for the patrons, far be it from such. I mean a place of recreation where the members would rather be than not, and where we out of town members would rather go than to the movies or to lounge around hotel lobbies.

Also I think it would be a good idea to have a committee get the names and whereabouts of all eligibles for membership, and see that they are from time to time invited to your club-rooms, luncheons, lectures and social gatherings; and if your present members show the right spirit on each occasion, I believe there would be a noticeable increase in the applications for membership.

In regard to better co-operation with your out of town members, this may be a pipe dream, but it looks plausible from my point of view. We live in, what is at present,

an isolated community. We are sure it will be much less so when the Roosevelt Highway is built. There are six or seven members of your society here, and as many more that should be. We are all more or less acquainted but we never get together formally. I have noticed in the Bulletin mention of a Public Speaking class. Wouldn't it be a good idea about once a year, when you know of one of your members who is a member of this class, or any other members who can talk, and is called down here on business, or to any other like community, to arrange for a dinner in the most centrally located town, and send out invitations from your Society to members and men who are eligible for membership in the vicinity to attend. He could tell us first hand what you are doing at headquarters, and we could eat and gossip, and I believe enjoy the occasion.

As I am in a small town I will only try to suggest what I believe would be a satisfactory method of establishing a scale of minimum salaries in such places. I would have a committee obtain the population of the different municipalities and counties throughout the state, and the salaries of their Engineers, County Surveyors, Roadmasters and assistants. Then they should determine the minimum salary, making it uniform from a certain population to a certain population, and so on, and endeavor to get it enacted into a law by the legislature."

That is pretty good dope, isn't it?

We have here an engineer who has some ideas, and is willing to share them with his fellows.

Another member says:

"Be the 'Salvation Army' to the Engineer. He needs a lot of help and fixing. He shrinks from business, politics and social intercourse. He should be prepared to become the executive heads of our utilities. He should get the 'brass' necessary to make himself heard on public matters, and then you will get co-operation among engineers. Do not allow the Society to be exploited for any individual.

More interest in the individual and less along abstract engineering, technical and academic subjects. More publicity and legitimate advertising. Get engineers on political committees instead of butchers, bakers, etc., when there are engineering matters to be considered."

You can tell that this man is awake, can't you?

The following from an out of town member is typical of several. He sends this in answer to question 20:

"Send out a monthly statement of work in progress or contemplated all over the state—news items concerning engineers and matters of interest to engineers, both members and otherwise. Members could be supplied with questionnaires supplying a great deal of the information in compact form. Note promotions and movements of engineers, and send out a statement once or twice a year stating the compensation of engineers for various kinds of work in various parts of the state. Send a good man around once or twice a year to meet those members who don't have the time or don't get enough pay to indulge in the luxury of a trip to the meetings, to find out how we are getting along and suggest whatever occurs to him for our improvement or betterment, which would undoubtedly be of great value as the result of his acquaintance with engineers all over the state. This service would to an extent, offset club-room and library advantages of Portland members, and would justify an increased charge for dues. Incidentally the reports from such a visiting engineer might prove very useful, interesting and perhaps amusing to the Society meetings at Portland, and so promote their success."

From a lieutenant comes some more "energy waves." You can see from the following extract that he is a "go getter."

"I wish to thank you sincerely for this opportunity to answer your questionnaire. It fills a long felt want and shows that at least one body of engineers has at least one spunk to throw off its cloak of con-

servatism and instead of asking 'How can we make Engineering a profession?' it says 'Let's make engineering a profession by associating ourselves into a close body, and make it a body that fills our needs.' The questionnaire, I take it, seeks to discover these needs.

I am in favor of letting the National societies take care of the technical part of the program. An electrical engineer finds little of interest in the discussion of a paper on hard surface pavements. If he is interested enough, let him attend a meeting of the A. S. C. E. On the other hand, general interest questions should be given the place of honor in our meetings. All engineers should be interested in new office systems or methods of accounting or in political matters affecting engineers in general—as licensing engineers, for instance. The O. S. of E. should father all branches of engineering and cater to the social and political wants of engineers, but let the National societies take care of our technical needs. They are better fitted."

These extracts from replies to the Questionnaire serve to give an idea of what the members are thinking about. The main trouble is that they are so few. Unfortunately it is not possible to print all that may come unless we follow the suggestion of a member who is evidently a sworn enemy of the Secretary: he wants a WEEKLY BULLETIN. Now what do you think of that for nerve? And the Secretary has to compile all this material when Nature is telling him that he should have been in bed an hour and a half ago. However, if you insist upon having a weekly Bulletin, you will get it, even though it may be necessary to get an editor who has insomnia.

#### ENGINEERING COUNCIL

National Service Committee  
Engineering Council Announces  
A. National Legislative and Departmental Information Service  
For Engineers in all Branches of the Profession.

This service has been placed under engineering direction, so that re-

sponses to inquiries will be specific and suitable for engineering use. Engineering Council has established this service in response to frequent expressions of need. Its continuance will depend largely on its use by the engineers of the country. No charge will be made for such services as the committee can render.

The Statistical, Research and Construction bureaus of the Government have become valuable sources of engineering information, but have not been used by engineers to the extent merited by the character of their material. Many matters before Congress involve engineering consideration, of which members of the Profession should be aware.

Set forth in specific language the kind of information wanted. Address the National Service Committee, M. O. Leighton, Chairman, 502 McLachlen Building, Washington, D. C.

Alfred D. Flinn, Secretary.

#### CONFERENCE OF TECHNICAL SOCIETIES

Called by Engineering Council  
Chicago, Ills., April 23-25, 1919  
on a

National Department of Public Works

C. J. Hogue was appointed delegate to represent the Oregon Society of Engineers at the Conference of Technical Societies in Chicago last month, and we have a copy of the Digest of Proceedings on file, from which a few items are extracted for the information of the members. Doubtless fuller accounts will be printed in the National Technical papers, to which you are referred for details not given here.

A copy of the resolution adopted by the convention is given below.

A resolution concerning topographic mapping, endorsing the work of Engineering Council in urging the Federal Government to hasten the work of mapping the remaining area of the United States, and calling attention to the fact that at the present rate of mapping the entire map will not be completed in less than eighty years, was adopted. This resolution also calls attention to the fact that these maps, if available at this time, would

be of great service in the program of highway construction now being begun.

A copy of a letter from Franklin K. Lane, Secretary of the Interior, to M. O. Leighton, Chairman, National Service Committee, Engineering Council, Washington, D. C., on this subject calls attention to the fact that there are a great many topographic engineers now available, and that if the individual states can increase their appropriations for cooperation in this survey, the work can proceed at greater rapidity than before the war.

We all realize the value of these maps in any field operations where they are available, and should use every means in our power to urge our representatives to work for any appropriations which will hasten their completion. If you have any friends in Congress or in the State Legislature, do not let them forget the importance of these maps in all engineering construction, particularly irrigation, highway and railroad construction, as well as their necessity to the war department. Keep at them.

When Mr. Hogue returns to Portland, we hope to have him tell us at a meeting, more about the convention and the men whom he met there.

#### NATIONAL DEPARTMENT OF PUBLIC WORKS

Resolution Adopted by Engineering and Related Organizations Representing a Membership of Over 100,000, Convened at Chicago, Ill., April 23-25, 1919.

This conference of the delegates from engineering and related organizations respectfully recommend to the Public and to the Congress, that legislation be enacted covering the following principles:

1. That the services and bureaus of the National Government having to do chiefly with matters of engineering and architecture, be grouped in one department to be known as the Department of Public Works.
2. That the Department of Public Works comprise those works which are built and operated for the use of the Public.
3. That the Department of Public

Works be made available when desirable for the performance of special engineering and architectural work for the use of other Government bureaus.

#### LETTER OF INVITATION

To Commercial Organizations, Manufacturing Associations and Educational and Engineering Societies.

My dear Mr. Secretary:

I beg to state that the Commissioner of Education has issued a call on behalf of the Conference Committee on Commercial Engineering recently appointed by him for a public conference on business training for engineers and engineering training for students of business. This conference, national in scope and in character, fully representative of all interests, will be held at the New Willard Hotel in Washington, Monday and Tuesday, June 23rd and 24th. All educational institutions, commercial organizations, manufacturing associations, and educational and engineering societies are cordially invited to cooperate and to designate one or more representatives to attend the conference. Prominent engineers, educators and business men will be invited to discuss the following major topics: Business Training for the Engineer; Engineering Training for Commercial Enterprises; Significance of the War Experience for Engineering Education; Training of the Engineer for Overseas Engineering Projects.

May I not, therefore, on behalf of the Commissioner of Education, respectfully request you to present this invitation for consideration and favorable action by the officers of your organization? In submitting the names of your delegates will you not kindly add their mailing address in order that they may receive direct from Washington further details in respect to this important conference?

(Signed) Glen Levin Swiggett,  
Specialist in Commercial Education,

Chairman, Conference Committee on Commercial Engineering.

#### THE ENGINEERS'

##### REGISTRATION ACT

Several inquiries have been received by the Secretary for information about the Engineers' Registration Act which is effective July 1, of this year. It is hoped that copies of this bill will soon be available to send to those wishing them.

A Board of Examiners consisting of nine engineers will be appointed by the Governor to take office July 1. They will select a secretary, secure offices, and issue themselves licenses to practice Professional Engineering in Oregon, and will receive applications from other engineers for licenses. If it is found that the applicants have had the required education and training, the licenses will be issued upon the filing of sworn statements of the experience of the applicants accompanied by a fee of fifteen dollars for each certificate of registration.

The term "Professional Engineer" is defined in the act, and penalties for the practice of professional engineering without having received the certificate from the examining board are provided.

Engineers are given until January 1, 1920, in which to register without examination, but after that time the certificates will be issued only after examination by the Board. There is no penalty for practicing professional engineering without a license before the first of next year.

Government engineers working on government work are exempt from the provisions of the act, and engineers working under licensed engineers are not required to be licensed.

A copy of the act which is nearly correct was printed in a recent issue of the Proceedings of the American Society of Civil Engineers.



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver.

PHIL EASTERDAY

305 BOARD OF TRADE BLDG.

MARSHALL 1622

JUN 6 1919



# BULLETIN

No. 35

PORTLAND, OREGON

June, 1919

## THE A. A. E.

We are told that straws show which way the wind blows, and we have also been told that fortunes may be told by cards, by reading the tea cups, by astrology and by various other devices, so after consulting all available means of foretelling the future we feel that it is a safe bet that the American Association of Engineers will soon be the leading technical society of this part of the country.

This issue of the Bulletin will be given over largely to matters concerning the A. A. E. and the report of the committee from our Society which has been considering the amalgamation of the two organizations.

The late copies of the Monad contain some of the best reading matter which has come to the attention of the Secretary for some years. I refer to the schedules of salaries for engineers in various lines of work adopted by the Chicago Chapter of the American Association of Engineers.

When these figures have been transferred from reports of committees to ordinances by city councils and to checks with our names on the proper dotted lines, then will we not have lived in vain. Then will we have come nearer to being paid in proportion to the effort which has been spent upon our training, and then can we support our families more nearly in the style to which they, as the families of professional men, are entitled.

The best way that I know of to hasten the day when these things may be realized, is to join the American Association of Engineers, and to lend the force of our numbers and of our annual dues to the organization which is doing such noble work for the well-being of the profession we have chosen.

## THE NEW CLUB ROOMS

Our energetic committee on Club Rooms, headed by Mr. Kratz, has secured quarters in the Tilford Building at the corner of Tenth and Morrison Streets—room 408, to be more specific—where we will have our home for the future.

There is ample space for meetings, and two pool tables have been provided for the use of members.

The books and periodicals of the Society will be found on the reading tables for those bookishly inclined. There are many valuable and interesting things in these books which have been long hidden in the darkness of the Secretary's cellar, and are now made available to the members.

And since the wives have quit reading the Bulletin, it will be perfectly safe to tell you a secret thus publicly: There is a perfect-ly charm-ing elevator operator, so you will not have to climb the three flights of stairs if you come early.

## AN IMPORTANT MATTER

To the Editor of the Bulletin:

Since we engineers have decided to take some more definite steps to convince the public that we are worth more than we are being paid, wouldn't it be a good idea to pay a little more attention to the language we use in doing the convincing, at least to the proper pronunciation of words belonging to our own technical vocabulary?

If a doctor should tell us he was going to administer an anesthetic, and mispronounce the word, we should probably decide to let another doctor do the administering. Yet we hear engineers every day pronouncing such words as "datum," "stratum," and "status" with a short "a."

STRICTLY A. NONYMOUS.

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 J. R. Thompson, 2nd Vice President.  
 O. Laurgaard, 3rd Vice President.  
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**REGISTRATION OF ENGINEERS**

Copies of the new law providing for the registration of professional engineers may be had upon application to the Secretary, Oregon Society of Engineers, Box 973, Portland, Ore., or by calling at his office, Room 419, City Hall.

An effort will be made to notify all members of the Society as soon as the board of examining engineers has been organized and the proper forms for applications have been printed. It does not seem probable that the Board will be ready to receive applications before the middle or last of July.

**THE QUESTIONNAIRE**

Forty men have answered the Questionnaire sent out with the last two numbers of the Bulletin with the following results:

Are you satisfied to have the Oregon Society continue in its past course? Yes, 5; No, 30.

Do you favor the Society looking more actively to the business interests of Engineers? Yes, 40; No, 0.

Shall we establish an effective employment department? Yes, 35; No, 2.

Do you favor the establishment of a scale of minimum salaries and fees? Yes, 36; No, 2.

Do you favor taking an active and aggressive part in legislation affecting Engineers? Yes, 37; No, 2.

Do you favor affiliation in any way with existing trade unions? Yes, 8; No, 32.

Are you familiar with the aims of the American Association of Engineers? Yes, 33; No, 3.

Do you favor affiliation with the American Association? Yes, 21; No, 14.

Do you favor co-operation with local chapters of the National Societies and other local engineering bodies? Yes, 34; No, 2.

Shall we establish a downtown office headquarters? Yes, 33; No, 4.

Shall we acquire clubroom facilities? Yes, 25; No, 10.

Would you advocate the increase of our present annual dues if clubroom and library facilities were provided? Yes, 28; No, 7.

Would you support a luncheon conducted in connection with clubrooms? Yes, 22; No, 10.

Would you support weekly or bi-weekly Engineers' luncheons such as we have had in the past? Yes, 23; No, 12.

Do you favor increased attention by the Society to social activities among Engineers? Yes, 36; No, 3.

Would you attend an Engineers' Dance? Yes, 24; No, 9.

Such an expression of opinion is a most excellent guide for the officers of the Society in outlining and carrying out policies for the future betterment of the organization. If any one has not spoken his mind fully and freely let him stand forth and speak it. Only by learning the wants of the individual members can the Society be made the most effective implement for good.

Come on with additional suggestions whether called for in the questionnaire or not.

**AMERICAN ASSOCIATION OF ENGINEERS**

What It Is and What It Does.

**HISTORY**

The American Association of Engineers was organized by a group of Chicago engineers early in 1915. On June 14 of that year it was incorporated (but not for pecuniary profit)

under the laws of the State of Illinois.

The National scope and type of organization could not possibly be named better than the American Association of Engineers. Almost from its inception the growth has been phenomenal for an association of this kind. Its existence has been justified by a steady increase in membership, which today includes representatives in every state of the Union and in Europe, Asia and South America.

The total membership curve of the Association makes an angle of 40° with the horizontal. The American Association of Engineers now desires that its aims and objects be properly presented to the thousands of engineers over the country who are eagerly awaiting their opportunity to join in such a movement as it typifies.

#### OBJECTS

The Constitution provides that:

"The objects of the Association shall be to **raise the standards of ethics of the engineering profession and to promote the economic and social welfare of engineers, especially by:**

"Affording means for the interchange of information beneficial to members of the engineering profession; maintaining a service clearing house for the benefit of the members, influencing proposed legislation affecting the engineering profession and taking any action necessary or advisable to safeguard the profession's welfare, promulgating the Association's ideas through proper publicity, and fostering a brotherly spirit among engineers."

#### MEMBERSHIP

There are four grades of membership: Certified, Junior, Student and Associate. The record of each applicant is carefully examined by the Qualification Committee and he is graded accordingly.

A Certified member must be a graduate engineer with two years' experience or he must have had seven years' experience, including three years in responsible charge of engineering work. Due credit is given for responsible drafting work.

A Junior member must be a graduate of any recognized technical college; or one or more years technical

training and two years practical engineering experience; or five years practical engineering experience.

A Student member must be taking engineering studies in a recognized school at the time he applies and will be dropped in six years if he does not qualify as a Junior member.

An Associate member must be at least thirty years of age and connected or interested in engineering. The Associate membership shall not amount to more than ten per cent of the Certified membership.

#### DUES

Certified, Junior and Associate members pay \$10.00 per year dues and an entrance fee of \$6.00.

Student members pay \$3.00 per year and are exempt from entrance or transfer fees at all times.

Entrance fees must accompany all applications.

Engineers while in the military service of the United States are not required to pay any dues or entrance fees, provided they are qualified for certified membership.

#### CHAPTERS

A Local Chapter may be granted by the National Board upon the petition of twenty members in any community. The purpose of the Chapter is to subdivide and localize the activities of the Association. Each Chapter has its own set of officers, which have full jurisdiction over the territory assigned to them. Business offices will be opened in connection with chapters in all cities where the size warrants it, principally to handle local work.

President Finley said: "We want the chapters to work out their own destiny, do their own work, take up the matters at hand in the community in which they live and are organized, with the fullest freedom. I consider the National Association of the A. A. E. as a sort of watch tower to register the work of the different chapters."

American Association of Engineers Clubs may be formed upon the application of three or more members. Every city or community with three or more engineers should have an A. A. E. Club.

#### LATE ACTIVITIES

The Association was first to repre-

sent the railroad engineer before the Government Wage Board and to make formal demand for substantial salary increases. After the problem of adjustment of the salary of the railroad technical engineer was taken from the Wage Board by the Director General, A. A. E. has made presentation of the case to Federal Managers and Regional Directors. Activity is under the direction of a committee consisting of W. H. Finley, President of the Chicago & Northwestern Railroad and E. H. Lee, President of the Chicago & Western Indiana Railroad. We are getting results and need the united support of all engineers in railroad employ.

Definite steps have been taken to obtain increase of salaries of engineers employed by states and municipalities or on public work. We find these offices are paying nearly the same salaries as they have for many years, regardless of the more than 60 per cent increase in the cost of living. A. A. E. has made definite recommendations for increase of pay for engineers in the employ of the city of Chicago and in the 1919-1921 budget of the State of Illinois.

#### QUESTIONS

Many questions are asked of members regarding the ethical ideals of the Association and the practical work which it is doing. The need for an organization on lines broader than the purely technical has been long felt, and detailed methods of solution of the many problems affecting engineers have been and must continue to enough to be out of work is certainly be developed with the growth of the Association.

For this reason the questions most commonly asked are answered herewith. They set forth certain fundamental principles which the American Association of Engineers is trying to inculcate among engineers and may be studied with profit.

**Question**—Why should the profession have another National Society?

**Answer**—When the Association was first started it was thought that numerous small local clubs and societies would either disband in favor of an American Association of Engineers

Chapter or form a union with such chapter. Several have already done so and others are considering it. There are many mutual advantages in local clubs affiliating with the American Association of Engineers. The result has been to consolidate the profession. The plan and method of distinctive achievement of one Chapter may be made the property of all.

**Question**—Why cannot the present National societies do all that the American Association of Engineers is doing?

**Answer**—All the other National societies have been organized to advance technical knowledge or at least have particularly devoted themselves to that object. Their constitutions were not designed to permit them to promote the engineers' welfare along other than lines of technical knowledge nor have their organizations been such that they have explored or even discovered larger fields of action for the engineer. Although these societies are awakening to the fact that there is a great need for something beyond their scope they have not yet developed a plan to meet the situation and many of their members realize that an organization such as the American Association of Engineers is one of the most effective means of meeting the impending responsibilities of the profession.

The American Association of Engineers' activities supplement those of the other societies. It seeks closer cooperation with them and to aid in a constructive social program.

**Question**—Just what is wrong with the ethics of the profession?

**Answer**—The ethical codes thus far promulgated for engineers, while concerned with the promotion or preservation of the engineer's interests and with his responsibilities to the public at large, yet lack appeal to the inner being of each member, without which such codes become mere recitals of detached virtues. A code of ethics which shall embody ideals of the profession of engineering and give them expression endowed with devotion and loyalty is yet to be formulated. There is needed a guide to professional action which will help against the in-

sidious evil of petty and adverse criticism of one another among members and against the temptation to cut prices for the sake of gaining an unfair advantage; there is needed counsel which will instill a sympathy in the hearts of the older engineers with the problems of the younger ones and a bond between these which will unite them in securing justice for both; and there is needed an instrument which shall be a stimulant to consistent, continued work and accomplishment without departure from the Golden Rule.

The policy of the American Association of Engineers will be to suggest action rather than to demand it and to redeem rather than indict the erring engineer. "The Engineers' Creed," published in the November Monad, is an advanced step in engineering ethics.

**Question**—Can the American Association of Engineers enforce its ethical ideals?

**Answer**—Yes; its Board of Directors has the power and has already exercised it. It may give hearing to an unruly member and expel him by a two-thirds vote. The member then has the right to appeal his case to the next following convention.

**Question**—What is meant by the phrase "to promote the economic and social welfare?"

**Answer**—It means that the American Association of Engineers stands for proper recognition for salaries and for adequate fees for engineers. Economically and socially the engineer does not take his proper place in society and he needs encouragement to do so, since incorrect assumptions are often made by engineers in regard to the methods of improving their status. It must be recognized that the work of the engineer is a social force and that engineers may fairly secure recognition of this fact through proper organization; it is by organized group action that engineers may render their most effective service to the state and to the citizens of the state.

The American Association of Engineers has never advocated big stick methods nor revolutionary tactics, but

it does believe that a strong, active organization is necessary.

**Question**—Is the American Association of Engineers a Union?

**Answer**—It is—a union of ideas, of high aims and of engineering bodies. It is a union as the United States of America is a union of sovereign states. It is a union of all the branches of engineering. A Labor Union it is NOT, any more than is the American Medical Society, the National Bankers' Association or the United States Chamber of Commerce, of which the American Association of Engineers is a member.

**Question**—What is the attitude of A. A. E. toward capital and labor?

**Answer**—The engineer is ever an arbiter and his position one between the laborer and the capitalist—Independent and judicial. The American Association of Engineers never countenances coercive measures to secure justice for engineers nor are such required.

In order to attain its object the American Association of Engineers believes in individual salesmanship of personal service more than collective bargaining; in demonstration of worth rather than demands with threats; in paying according to economic value rather than a pyramiding scale of standard wages; in publicity regarding unsatisfactory working conditions rather than methods of force.

**Question**—The American Association of Engineers is said to be an employment agency. Is it true?

## Remember

Vitrified Clay Pipe never disintegrates, is impervious to acids and alkalies.

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& Coal Co.**

Chamber of Commerce Bldg.

Main 3656

**Answer**—The American Association of Engineers is proud of the results attained in the serving clearing-house. Several thousand men have been assisted through this bureau and saved the humiliation and the cost of dealing with an agency. In one month our Service Clearing-House saved to our members as much as \$6,000 which would have been paid agencies had employment been secured through that channel. Helping those unfortunate one of our aims, but far from being the only one.

#### APPLICATION FOR MEMBERSHIP

The following abstract from an application for membership is on file in the Secretary's office and is published for the information of Society members. If no objections to the admission of the applicant are received by the Executive Board within twenty days from the publication, upon recommendation of the membership committee, the Board will proceed to ballot upon the applicant.

**Hoffman, A. J.,** 450 Holland Street, Portland, Oregon. (Age 26; born Escanaba, Mich.) (Escanaba High School 1911, Carroll College 1911-12, studied mathematics, chemistry, surveying, mechanical drawing and languages.) 1914-17 Coin Machine Co., machinist and machinist helper; 1917, S. P. Co., Portland and Dunsmuir, Cal., auditor's accountant; 1917-18, clerk and accountant; Oct. to Dec. 1918, U. S. artillery. 1919, draftsman, city engineer's office, Portland, Oregon. Private research work in chemistry and additional study of mathematics since leaving school.

Endorsed by L. F. Schuele and Orrin E. Stanley.

#### REPORT OF DELEGATE TO THE ENGINEERING CONFERENCE, CHICAGO

May 8, 1919.

Mr. O. E. Stanley,  
Secretary Oregon Society of Engineers,  
City Hall, Portland, Oregon.  
Dear Mr. Stanley:

I enclose herewith the digest of proceedings of the engineering conference in Chicago, April 23-25, which includes the resolutions adopted, list of committees and the registration.

The conference was called by the National Service Committee of Engineering Council of United Engineering Societies. The two principal accomplishments of the National Service Committee were the persuading of Engineering Council to admit other member societies than the founder societies and the calling of this conference. The conference itself consisted of the biggest bunch of engineering highbrows that I ever got mixed up with. They were really men of very great prominence and attainment, as you will see

from the registration list, and I do not know that so many of them had ever gotten together in one conference before. That in itself speaks hopefully for the future. In addition, there was a very frank discussion of the faults and failures of engineering societies and what might be done to correct them. The American Association of Engineers loomed big on the horizon and received its share of attention. Engineering Council laid its troubles before the conference, reciting its difficulties on being blamed on the one hand for not being live enough and on the other for losing its dignity and going too far. It has probably been in a very difficult position. Its representatives felt that it had taken a step forward in admitting other societies to membership. Under the present arrangement the control is retained by the founder societies but the opinion was expressed that it would be only a short time until other societies were admitted on an equal basis of influence. The other accomplishment of Engineering Council, the calling of this conference, was the result of the experience of the National Service Committee in Washington. There was no question on anyone's part as to the advisability of the establishment of a national department of public works, but there was much discussion of wording and methods. The first resolution was a general one on the establishment of the department. The second was on the formation of such a department; the third a resolution continuing the conference until the completion of its work; the fourth resolution creating committees to carry on the effort and other miscellaneous resolutions closing up the proceedings.

You will note that in the Campaign Committee, Mr. Charles Swigert is named as the only representative from Portland. The Chairman of the Committee which named the committee members explained to me that their committees were named hurriedly and that the suggestion of additional names for membership would be welcomed. Good men and energetic have been named on the three committees and we will now see what the result may be.

In this connection it is interesting to note that 33 years ago an almost exactly similar conference was held, the proceedings themselves being almost the same. Some of those present at the earlier conference were present at this, but I hope that some of us will not be the oldest members present at another similar one 33 years from now. The reason ascribed to the failure 33 years ago was lack of publicity and too dignified an aloofness from political activity and influence. The cry of this meeting, however, was that engineers must get into politics.

A part of one day was given to discussion of the resolution concerning topographic mapping and the various societies represented were urged to communicate with the congressman from their districts to urge an appropriation for the completion of this work. If the Oregon Society is interested in this matter, and I should think they would, be because so little of

Oregon has been mapped, I would suggest it as a matter to be put before them at an early meeting.

The last half day of the conference was given to a discussion of the means of better coordinating engineering activities. There was much talk but little definite suggestion. Just as in the case of the consideration of the establishment of a National Department of Public Works, there was no dissent from the thought that engineering activities should be better coordinated and more active, but the method of accomplishing it failed to appear and no action was taken nor resolution passed.

In the discussion in regard to the American Association of Engineers, it seemed to develop that this organization had a place of its own. In fact it was said that the present national engineering societies represent some hundred thousand of the more advanced and possibly more of the employing class of engineers, while the American Association is endeavoring to reach and help another hundred thousand younger engineers who are not now members of the national societies. It was speculated upon, therefore, as to whether the ultimate outcome would be Engineering Council with 100,000 members on one hand, representing one type of engineer, and the American Association with an equal membership, representing the other type, or whether the American Association would simply take its place among other national organizations, or whether means could be devised of so making practical the operation of the national societies that the American Association would be absorbed.

It appeared that in a number of cities sections of the national societies are affiliations of the national societies are affiliated in city and state federations. The sentiment seemed to favor strong, local organizations, with greater influence in the conduct of the parent societies. But how this should be accomplished and whether local societies should have members—not members of the national societies, or not, and whether local federations should have direct connection with Engineering Council, or whether Engineering Council should be composed only of national societies, was not discussed to a conclusion. It was felt that much had been gained by the conference which was held and until a logical method of coordinating all activities—national and local—was worked out, that similar annual conferences would be of great value in bringing the various interests better together in taking up matters of common interest and in working towards the ultimate solution of the problem.

It would seem to me that the future of such an organization as the Oregon Society could be so worked out that it would contain all members of the national societies and at the same time would have a place for others who, for various reasons, financial or otherwise, were not in a position to become members of national societies, but which wanted to affiliate with an engineering organization and who would ultimately probably take

such national membership, and that the members having certain engineering interests could act as a unit on technical matters and be in direct connection with the national association to do with that particular part of engineering, while the society as a whole could have direct connection with Engineering Council or some national federation, and that matters of social and economic interest be handled by the society as a whole, and directly with the national organization.

The conference is subject to further call, when occasion may require, and unless I hear from you to the contrary I will continue to act as your representative, if such call should come.

Yours very truly,

C. J. HOGUE.

#### REPORT OF THE COMMITTEE ON AMALGAMATION WITH AMERICAN ASSOCIATION OF ENGINEERS

To the Executive Board of the Oregon Society of Engineers:

Your Committee, after several informal discussions, met formally at the Portland Hotel Tuesday noon June 17th, and effected organization, appointing Mr. Barnes Chairman and Secretary. As a result of previous discussions, tentative plan was fully discussed and amended, and the plan is herewith presented by your Committee. It is of course to a large extent tentative. It may well be set forth that governed by previous negotiations with the American Association of Engineers headquarters, and copy of formal preliminary agreement between Oregon Society of Engineers' representative and Mr. C. E. Drayer. This agreement has received the endorsement of the Executive Board of the American Association of Engineers at Chicago, and we are at liberty to proceed with the details of organization on that primary basis as far as the Association is concerned. The detail plan herewith presented, has been presented to the Local Chapter of the American Association, informal meeting and has their endorsement.

Of the several plans proposed for completing the amalgamation in a satisfactory manner, the plan providing for an amendment to the constitution of the Oregon Society appears to be the only simple and feasible method of procedure. Briefly it is proposed to put before the next meeting of the Oregon Society of Engineers providing the executive board concurs in the Committee's recommendation and amendment to the constitution of our Society which will set forth in detail the method of amalgamation and will take care of all questions involved therewith. This amendment will be voted on at the next called meeting of the Society as provided by the constitution and the passage of the amendment will automatically complete the formal portion of the amalgamation as far as the Society as a body is concerned. We show below Article 16, being the proposed amendment and containing the plan which your Committee was directed to formulate.

Article I and succeeding articles of this constitution shall be amended as follows:

1. This organization shall amalgamate and unite with the Portland Chapter of the American Association of Engineers.

2. The name of the organization shall be the American Association of Engineers, Oregon Chapter.

3. The objects of this organization shall be to advance the science and practice of engineering, to organize engineering opinion in public matters, to raise the standards of ethics of the engineering profession and to promote the economic and social welfare of engineers.

4. The territorial limits of this organization shall be the State of Oregon and the City of Vancouver, Washington.

5. There shall be a provision in the constitution and by-laws of this organization providing that chapters or clubs may be formed within this territory in the future as occasion develops, under arrangements as to territorial limits which is consistent with the constitution and by-laws of the American Association of Engineers.

6. Any member in good standing of the Oregon Society of Engineers may enter this organization without entrance fee, provided application for membership is made on or before February 1, 1920.

7. Any member in good standing of Oregon Society of Engineers on entering this organization shall fill out the application and qualification blanks necessary for admission to membership in the American Association of Engineers and shall be classified by the Qualification Committee of that Association as provided in the American Association of Engineers' constitution and by-laws.

8. Any member in good standing of Oregon Society of Engineers who is elected to membership in this organization, shall pay to proper officer, an admission to membership, the sum of \$9.00 for first year's dues. Of this \$9.00, not more than \$4.00 shall be apportioned to the National Headquarters of American Association of Engineers.

9. The annual dues for succeeding years shall be \$12.00 per year payable at the beginning of membership year. Of this \$12.00, \$4.00 shall be allotted to National Headquarters of American Association of Engineers.

10. Special provisions as to dues of student members shall be made.

11. Oregon Society of Engineers, prior to date of amalgamation, shall, as far as possible, complete equipment and furnishing of club rooms, expending therefor as necessary, funds of the Society.

12. This organization shall, after amalgamation, take over the club rooms, furniture and equipment, equities, and all assets and liabilities of Oregon Society

of Engineers, and shall also take over all obligation of Oregon Society of Engineers incurred for such club rooms in accordance with Article II above.

13. It is understood that the allotment of portion of dues to headquarters is an arbitrary allotment and that adjustment to lesser allotment may be made if the financial condition of National Headquarters of A. A. of E. warrants such reduction at a later date.

14. It shall be the purpose of this organization to maintain a headquarters or club rooms for use of all members and to employ a paid Secretary. It shall be the object to pay this Secretary for full time if at all possible, to do so, and that an endeavor shall be made to secure immediate allotment from headquarters fund for this purpose. It is understood that National Headquarters of American Association of Engineers will not discriminate against this organization in allotment of funds for payment of Secretary.

15. There shall be an election of new officers for this organization. This election shall be held in accordance with the constitution, and by-laws of American Association of Engineers, and all members who have applied for membership in A. A. E. will be entitled to vote.

16. This election shall be held as soon as possible but not later than September 15, 1919.

17. For purposes of final organization, amalgamation of membership shall be considered as complete August 1, 1919.

18. A committee shall be appointed by the President of O. S. of E. to handle further details between adoption of this amendment and date of election of new officers. This Committee together with Committee of A. A. E. shall constitute a joint committee to draw up budget for this organization, which committee shall audit the accounts of O. S. of E. and A. A. E. as of August 1st and submit report to officers of both societies.

19. The constitution and by-laws of the A. A. of E. shall determine the constitution and by-laws of this organization.

20. This amendment shall be effective immediately upon adoption as provided in the constitution.

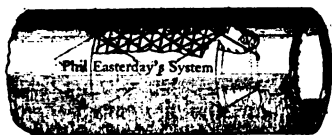
This report has been the subject of a great deal of careful study and any objections which may be raised can be met with a definite reason for the action recommended by your committee, and we believe that the plan is the best solution of the problem which at this time could be developed.

AMALGAMATION COMMITTEE.

R. W. Barnes.

O. Laugaard.

C. P. Keyser.



"Permanent as the Pyramids"

This name on Reinforced-Concrete Culvert, Sewer or Irrigation Pipe stands for the same thing as "Sterling" on silver. **PHIL EASTERDAY**

305 BOARD OF TRADE BLDG.

MARSHALL 1632



# BULLETIN

No. 36

PORTLAND, OREGON

August, 1919

## MEETING WITH DR. NEWELL

Dr. F. H. Newell, President of the American Association of Engineers, will install the Oregon Chapter Friday night, August 22d, and will speak at Portland Turnhall, 13th and Madison Sts., in the south reception room at 8:00 P. M.

Dr. Newell is head of the Civil Engineering Department of the University of Illinois. He has been called the "Father of the U. S. Reclamation Service" of which he was first Chief Engineer and Director.

He is a member of the American Society of Civil Engineers, American Society of Mechanical Engineers, Western Society of Engineers and one of the original members of Engineering Council, but he has come across the country to tell us what the American Association of Engineers stands for and what it is going to do. He will tell us at first hand of the plans, ideals and objects of the National body with whom we as a Society have cast our lot. He comes to acquaint himself and the National Headquarters at first hand with our local plans, the results we have thus far secured, and our hopes for the future.

He has covered the greater part of the United States in the interest of the American Association of Engineers and will have some up to the minute information on the process engineering organization going on throughout our country.

All of the technical societies in Portland have been invited and there will be a big and lively attendance. Our President is one of the country's foremost engineers, he is a good talker, and has put all the force of his personality into the advancement of the principles for which we stand.

Let's all go to this meeting, make it a record for attendance and enthusiasm, a landmark to which to tie the economic and social progress we are going to make for engineers in Oregon. Let us show our President we are for him and the principles for which he stands.

Remember the date, August 22d at 8:00 P. M. sharp—and COME.

**WHAT TO DO.**

You've seen that heading in the Sunday School paper, haven't you, followed by plain descriptions of simple tasks for little hands, and immature brains?

Below is an attempt to make plain what is to be done by members of the Oregon Society of Engineers to become members of the American Association of Engineers.

**First:** Make sure that your dues in the Oregon Society of Engineers are paid for the year 1919. A statement may be sent to you if you are in arrears, but don't wait for that. Unless you are sure that you have paid up for the year (you can tell by looking at your last pale blue receipt) get hold of Mr. John A. Rockwood, 602 Electric Building (Marshall 5100), and **make sure.**

**Second:** If your dues are paid for the year 1919, you will receive a blank from the American Association of Engineers upon which you will outline your professional experience for purposes of classification in the Association, returning the blank to R. W. Barnes, Room 36, Union Depot, Portland, Ore.

**Third:** Upon being notified of your acceptance as a member of the Association, you will pay to the Treasurer (to be elected before Sept. 15) the sum of Nine Dollars (\$9.00). This entitles you to club room privileges and other advantages of the Association for one year from the date of your admission to membership in the Association. As the regular dues are \$12.00 a year for the Oregon Chapter, and the regular initiation fee is \$6.00, you can see the advantage of joining as a member of the Oregon Society of Engineers.

**Fourth:** Be sure to write across the face of your application "Member Oregon Society of Engineers." This will clear up doubts as to amount of dues and omission of entrance fee.

**Fifth:** If in doubt about any point ask the Secretary.

**REGISTRATION OF PROFESSIONAL ENGINEERS**

Information relative to the Registration of Professional Engineers, with blanks for the use of applicants for registration, is being prepared by the State Board of Engineering Examiners, 520 Corbett Building, Portland, Oregon, and will be ready for distribution about the time that you receive this Bulletin.

Every engineer in the state should send at once to Mr. A. B. Carter, Secretary of the Board, at the above address, for this information, so that he may have ample time in which to prepare a statement of his experience in case he wishes to register.

Should the Board decide that the engineer does not possess the necessary qualifications for registering without an examination, the examination may be applied for, and the license secured before the first of the year, after which time no one may practice professional engineering in the state without such license.

Wouldn't it be a good plan to write this letter to Mr. Carter right now, before you get interested in the rest of the Bulletin and forget about it?

If you don't want to register, send for the blanks or a copy of the Act anyhow, that you may be informed as to what is required of those who will receive licenses.

**EX-SERVICE MEN**

All members of the Oregon Society who served in the army or navy during the World War are requested to send a brief account of their service to the Secretary, Box 973, Portland.

This is not to satisfy the idle curiosity of the Secretary, but to enable the Treasurer to give credit for dues during the time of service. It is a case where you will be well paid for the effort of writing.

If you are too darned modest to tell what you did to put the Hun out of business, buy a postal card and give the date of enlistment and date of being mustered out of the service.

It is important that this record should be complete this month (Aug-

ust) so please pause right here and get this off your mind.

This issue of the Bulletin is purposely being made uninteresting and without any particular continuity in order that you will not be carried past these important stopping points by your breathless anxiety to find out whether or not "they got married."

Your record, please.

Right now.

### BIGGER AND BETTER

The amalgamation of the Oregon Society of Engineers with the American Association of Engineers has been approved by both organizations. The affairs of the society are now in the hands of a joint committee of six. This committee will call an election before Sept. 15th at which officers of the American Association of Engineers, Oregon Chapter, will be chosen.

This amalgamation follows the spirit of the times—getting closer together for the purpose of giving better service to members and to the public.

We now have a local technical society with all the vigor of a new organization, with the wisdom of an old one, and with the strength of both; backed by the national organization of A. A. E.

Let no one hang back to "see what will happen," but rather, let every member, of whatever grade, press forward and make things go with a vim.

Headquarters office is expecting us to do things—to originate, and to carry out ideas that will bring our profession to the front, and keep it there.

We will make good.

### A NATIONAL DEPARTMENT OF PUBLIC WORKS

Engineers, Architects & Constructors  
Conference on National Public Works.

Mr. Orrin E. Stanley,  
Dept. of Public Works,  
Portland, Oregon.

Dear Mr. Stanley:

At the Engineers, Architects, and Constructors Conference on National Public Works in Chicago in April of this year, it was resolved that the Government of the United States should include a National Department of Public Works with a member of the Cabinet at its head.

I have been requested by the Executive Committee of the Conference to organize the campaign of education on this subject in California and adjacent states.

What is desired is to have all technical men informed of the plan which has been agreed upon to establish such a department. This plan should at once receive the consideration and, it is expected, the approval of engineering and other technical organizations. These organizations and the members in individual capacity should engage in a general publicity campaign. By petition and by personal letters approval of the proposed plan to secure such a department should be requested of the various congressional delegations.

The proposed plan of establishing a National Department of Public Works will not disturb the present functions of any government bureau as now organized. All of those whose activities are predominately of an engineering character are to be assembled in one department and ample time will be available for any later reorganization which may be found necessary.

I am requesting the National Service Committee of the Engineering Council, Washington, D. C., to send direct to you a copy of a brief pamphlet on this subject and request that you please bring this matter to the attention of your organization with a request for early action as above suggested.

Very truly yours,

C. E. GRUNSKY.

Below is given an outline of the provisions of a bill to create a Department of Public Works.

Copies of the complete bill will be available soon for all who may be interested in knowing further details.

Far reaching changes in the executive machinery of the federal government were proposed in bills introduced in each house of Congress June 25. The federal department of the interior will become the Department of Public Works, if the legislation proposed is enacted. The main idea is to assemble all engineering activities of the government in one department.

Such bureaus of the Interior Department as are non-engineering in character are to be placed under the jurisdiction of appropriate departments, while engineering bureaus from other departments are to be included in the Department of Public Works. The bill proposes that the Patent Office is to be removed from the Interior Department and placed under the Department of Commerce. The Bureau of Pensions is assigned to the Depart-

ment of the Treasury. The Bureau of Education goes to the Labor Department. The Bureau of Indian Affairs also is transferred to the Department of Labor, with the proviso that the engineering and construction work and the land and mineral surveys now performed under the direction of the Bureau of Indian Affairs are to be prosecuted under the Department of Public Works. St. Elizabeth's Hospital and the Freedman's Hospital in this city are assigned to the Treasury Department. Columbia Institution for the Deaf and the Howard University go to the Bureau of Education, under the provisions of the bill.

On the other hand, the Department of Public Works is slated to absorb the Supervising Architect's office of the Treasury Department; the Construction Division, River and Harbor Improvements, Mississippi River Commission, and California Debris Commission of the War Department; the Bureau of Standards and the Coast and Geodetic Survey of the Department of Commerce; the Bureau of Public Roads and the Forest Service of the Department of Agriculture.

The bill provides that the Secretary of Public Works "shall by training and experience be qualified to administer the affairs of the Department and to evaluate the technical principles and operations involved in the work thereof." The measure excepts from the foregoing provision the cabinet officer who is at the head of the department at the time of the passage of the bill.

Four assistant secretaries, each to be paid \$7,500 per annum, are provided and their duties outlined. One assistant secretary is to have administrative jurisdiction over all matters of engineering design and construction. Another is to have charge of architectural design and construction. The third is to have jurisdiction over all scientific work and surveys, while the fourth assistant secretary is to be in immediate charge of all land and legal matters. The assistant secretaries are charged with the duty of coordinating and bringing into efficient relationship all the activities of the depart-

ment so that it may be harmoniously and efficiently administered.

An important feature of the bill is the proviso; that engineer officers of the U. S. Army detailed on non-military work are to be assigned by the Secretary of War to like duties under the new department, for not over two years. This enables the Secretary of Public Works to make gradual transfer of improvements and instrumentalities to civil administration without detriment to public interest. Members of the Corps of Engineers may, under the direction of the Secretary of Public Works, be detailed by the Secretary of War to temporary duty in the new department for such instruction, training and experience as is desired.

The bill, which was introduced in the upper House by Senator Wesley L. Jones, of Washington, and in the lower House by Representative Frank C. Reavis, of Nebraska, follows:

#### THE AM. SOC. C. E. MEETING, AUGUST 12.

Mr. D. D. Clarke, who has been unable to attend the meetings of any engineering society for many months, appeared in person at the meeting of the American Society of Civil Engineers, Portland Association, on Aug. 12. He was heartily welcomed by all the other members who were present, and by whom he is held in the highest esteem. Mr. Clarke was for many years chief engineer of the Water Department of the City of Portland, and his retirement from this active work on account of sickness, has been regretted by all who know him.

Mr. Geo. C. Mason presented a progress report of the Development Committee of the Society, and started a lively discussion as to the proper means for arriving at results which all feel to be desirable. As is frequently the case, a compromise was reached, and although no one seemed particularly pleased, there was no bloodshed.

The meetings of the local association of members of the A. S. C. E. are not of the "dry as dust" variety popular a few years ago, but there is something doing all the time, and this

something is of interest to every member of the Society. Any member who stays away from a meeting because he has to water the lawn, or dislikes to stir from his fireside after a good dinner with "friend wife" is missing one of the best things to be gotten from membership in the Society—one of the things that can't be bought second hand or gotten from the shelves of the Public Library—and that is, association with men who rank high in the profession.

### THE CLUB ROOMS.

Keys to the Club Rooms of the American Association of Engineers may be had by members on payment of twenty-five cents (two bits, you understand) to Mr. Kratz, Room 426, City Hall, Portland.

Get one the first chance you have, and then use it early and often. If you use it early enough, you will get a chance at the pool tables before the crowd gets too dense. Don't get the idea that I am speaking about the mentality of the crowd when I say "dense" but rather, physical density is meant.

You may find the rooms open, and a congenial group of engineers gathered there. If you do, and they are men whom you have not met before, I am sure that your finer sensibilities will insist that you turn away and seek a mutual friend to introduce you properly. But your common sense will come to the rescue and tell you to introduce yourself to them and have a good time.

And here let me tell you a little secret that retails for various prices from five to fifteen dollars, depending upon whether you are of the correspondence school, or the personal instruction brand of religion. When you meet a man for the first time, look him in the eye—both eyes, if he has two. Get his name clearly in mind. He will be glad to spell it for you rather than have you call him things that he isn't and never was, the next time you meet him. Then connect his name in your mind with his personal appearance by noticing that Mr. White has very black hair; or that Mr. Smith has horny hands, or the opposite, that they are soft as a girl's;

or that Mr. Johnson whom you meet today is quite like the Mr. Johnson who chased you out of his orchard years and years ago. Then when you are alone, write down the names of the men you have met today, and read them over frequently, recalling their appearance. In a little while you will cease to apologize for your "poor memory for names even though you never forget a face" and you will take pleasure in meeting men where you once dreaded it.

Go to the Club Rooms every time you can and practice this, and above all, don't miss a meeting of the Association that you can possibly attend. The meeting with other engineers will broaden you as nothing else can. You will be a better member of your community if you will do these things, and will likely profit financially as well.

Of course, if your conscience hurts you in the matter of getting these valuable secrets of success and long life and happiness at the small price of membership in the American Association of Engineers, there is nothing like a gift of cash or furniture to the Club Rooms Committee to soothe the hurt.

### CO-OPERATION OF ENGINEERS

The American Association of Engineers is built around the idea of co-operation.

It has taken some of the older societies quite a while to wake up to the fact that only by co-operation can engineers hope to obtain the recognition to which they feel that they are entitled. That they are beginning to rub their eyes and yawn is a hopeful sign.

If the A. A. E. continues to make a loud and compelling noise like getting breakfast, it will not be very long before, one after another, the staid old parties will begin to file into the dining room, assume their places around the table and tuck their napkins under their chins preparatory to the enjoyment of some of the products of co-operation.

But that isn't what I started to say. I want to call attention to the work that is being done towards getting the local engineering societies together for the

social and economic benefit of their members.

Some months ago, Mr. Calvin Rice, Secretary of the American Society of Mechanical Engineers, was in Portland, and at a dinner presided over by Mr. B. C. Ball, he outlined a plan for getting the local societies and local branches of the national societies together into a unit for action on local affairs in which engineers should take a leading part.

Three succeeding meetings have been held.

A committee has been named to prepare a tentative constitution for presentation to the interested societies for ratification.

Many valuable suggestions have been made to the committee for writing into the constitution, but there seems to be a "hitch" in the proceedings. The house is divided on the question of representation on the governing board.

The larger societies favor proportional representation, while the smaller ones fear that they will be merely caudal appendages to the main body by such an arrangement, lending the dignity of their names to causes originated by less seasoned men. They, therefore, favor representation by an equal number of delegates from each society, regardless of size.

There are, of course, arguments in favor of each view.

The representatives of the various societies are to meet at the call of the secretary after the constitutional committee is ready to report.

And while this committee is resting placidly, waiting for "something to turn up," something has actually turned up; and that thing is a proposal for the affiliation of the local sections of such of the national engineering societies as are eligible to membership in Engineering Council, with local technical societies, for purposes of co-operation.

After you have read this last paragraph over enough times, you will grasp the idea that it proposes co-operation without including the liveliest bunch of co-operators in this neck of the woods. Maybe it is the right idea, but to one who tries to see things as

they are, it appears that the proper, and only way for engineers to work in unison, is for all to get together on SOME basis—by compromise if necessary—and then to pull in one direction. If the profession is divided it will get nothing of value. If united, it can get anything in reason.

The way to co-operate is to co-operate.

Let us co-operate.

#### AS OTHERS SEE US.

To the Engineers:

I heard something about engineers the other day from a great man—an acknowledged statesman, a high-minded politician, and a keen observer of people and events. His name, if I were permitted to tell it, would surprise every reader of this message. We were talking about our project for a National Department of Public Works. I am able to quote it almost verbatim because the words burned in as they were uttered.

"Your task is appalling. You have been elected to lead engineers into a political reform. They are the most unresponsive citizens that we have. Your organization has a praise-worthy purpose but if it were sponsored by almost any other group of reputable men than engineers there would be more promise of success. If your organization succeeds I believe you will find that it will not be the engineers who have carried it through. Their aloofness and indifference in all matters outside of their own professional sphere are among the unexplainable things in our political life."

That statement hurt. How many other public men have the same opinion? As it comes from a high authority who is not given to loose talk it seems wise to pass it on to the engineers of the country.

N. C. LEIGHTON,  
Chairman,

#### PERSONALS

R. A. Gibson is now with the Leonard Engineering Co. of Chicago. His present address is 11029 S. Hoyne Av., Chicago.

Capt. W. D. Peaslee is now connected with the Jeffery Dewitt Insulator Co. of Huntington, W. Va.

J. C. Sharp, formerly Chief, Bureau of Sewers, Portland, is at Yakima, Washington, on irrigation work for the U. S. Reclamation Service.

C. H. Smith came into Portland a few days ago in connection with an injunction suit which tied up work on the big concrete dam which he is building at Riverside, Oregon, for a few days. Mr. Smith says that the weather has been hot, dry and windy. He was glad to be in Portland for even a short time.

**MINUTES OF MEETING OF THE EXECUTIVE BOARD OF THE OREGON SOCIETY OF ENGINEERS, JULY 31, 1919, AT THE HAZELWOOD RESTAURANT.**

There were present Messrs. Cunningham, Laurgaard, Stevens, Blood, Kratz and Stanley.

The minutes of the meeting of June 23 were read and approved.

The following bills were read, and upon motion, were approved and ordered paid.

A. L. Tibbetts, 100 keys to clubroom..\$22.00  
Hansen Printing Co., June Bulletin.. 22.75  
Orrin E. Stanley—

|                              |         |       |
|------------------------------|---------|-------|
| P. O. Box rent to Sept.....  | \$ 3.00 |       |
| June salary .....            | 25.00   |       |
| July salary .....            | 25.00   |       |
| Stamps and postal cards..... | 1.68    | 54.68 |
| Van Corder's Delicatessen—   |         |       |
| 90 sandwiches .....          | 9.00    |       |
| 24 dill pickles .....        | 1.20    |       |
| 15 ginger ale .....          | 3.00    |       |
| 16 Bevo .....                | 2.40    |       |
| 9 Blitz .....                | 1.35    | 16.95 |
| Less credit .....            |         | 1.55  |
|                              |         | 15.40 |

|                                                  |       |       |
|--------------------------------------------------|-------|-------|
| Commercial Advertising Co.—                      |       |       |
| 317 cards mult. and stock....                    | 3.89  |       |
| 317 addressing .....                             | 1.40  |       |
| 317 1c stamps .....                              | 3.17  |       |
| Fold and mail.....                               | .30   | 8.76  |
| 313 env. addressed, fold and mail Bulletin ..... | 2.50  |       |
| 1 list of all active and junior members .....    | .40   |       |
| 2 copies full list on cards....                  | 2.40  |       |
| 1 copy of full list.....                         | .50   |       |
| 560 cards (stock).....                           | 2.00  | 5.30  |
| 325 P. C. Mult.....                              | 3.25  |       |
| 325 P. C. stock.....                             | 1.10  |       |
| Cards addressed .....                            | 1.40  |       |
| 313 stamps .....                                 | 3.13  | 8.88  |
| O. Laurgaard—                                    |       |       |
| 3 dozen tumblers .....                           | 3.75  |       |
| 25 dozen paper plates.....                       | 1.00  |       |
| 4 folding tables .....                           | 15.80 | 28.55 |

Applications for membership were read, and the following men were elected:

As active members, John Hansen, A. H. T. Williams, Chester A. Houghtaling, Earl A. Marshall, Leo R. Lange, Frank E. Grubb, D. Vincent Stroop, Park P. Patton, W. H. Bressel, Fred E. Hogan, and J. H. Pos.

As junior members, A. J. Hoffman and John C. Smock.

Mr. Kratz moved that the July rent for the club rooms be paid, and an order drawn for \$60.00 in favor of Cord Sengstake for same. Carried.

Mr. Laurgaard moved that the Executive Board approve the contract for pool tables, and obligate the Society to pay \$20.00 per month for twelve months for the tables. Carried.

Mr. Laurgaard moved that \$35.00 be appropriated to pay for getting out another issue of the Bulletin. Seconded by Mr. Blood. Carried.

Upon motion duly made and seconded the Club Room Committee was made an auditing committee to audit the Treasurer's books, and that the unexpended balance after paying the bills authorized at this meeting, be turned over to the Club Room Committee to purchase furniture for the rooms. Carried.

ORRIN E. STANLEY,  
Secretary.

**MINUTES OF MEETING OF OREGON SOCIETY OF ENGINEERS, CLUB ROOMS, 408 TILFORD BUILDING, JULY 24, 1919.**

Meeting called to order by Vice President Laurgaard, who presided.

The minutes of the meeting of June 27 were read and approved.

Mr. Barnes moved that "The amendment, Art. 16, as read before the last

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meeting, and published in the Bulletin of June, 1919, be adopted." After discussion by Messrs. Barnes, Covell and Lewis, and letters from Messrs. Joslyn, Cunningham, Roberts and Young, the motion was carried unanimously.

The minutes of the Engineering Council for July 7 were read.

Mr. C. J. Hogue reported upon the convention to discuss a National Department of Public Works, in Chicago.

Capt. A. D. Montieth told some of the things done by our engineers in France.

The question of a "Joint Secretary for the Board of Engineering Examiners and the Engineering Societies" was discussed by Messrs. Kratz, Blood, Hampton, Ehle, Barnes, Baar and Vance.

Capt. Montieth moved "That it is the sense of this meeting that a joint secretary for the Board of Engineering Examiners and the Engineering Societies, be favored."

Upon motion the Society adjourned sine die.

ORRIN E. STANLEY,  
Secretary.

First Lieutenant Walter M. Eaton of the Chemical Warfare Service, died recently at Cleveland, Ohio, where he was stationed.

Lieutenant Eaton joined the Oregon Society of Engineers in August, 1916. He was for two years metallurgist and engineer for the Balkalala Consolidated Copper Co., and then for two years, Assistant Physical Chemist, U. S. Bureau of Mines, at San Francisco. Later, he served as assistant city engineer of Albany, Ore., and county engineer of Jefferson County, Ore.

## GOODBYE

This is the last number of the Oregon Society of Engineers' Bulletin.

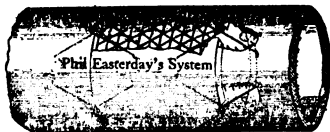
A black border has been suggested, but in the opinion of the editor, it is not justified.

We are told that "the good die young." This being true, you are left to form your own opinion as to the "goodness" of the Bulletin, which has appeared "off and on" for nearly four years.

It has tried to keep the human side of the engineer more prominent; for after all, it is the human side that is the more interesting, even though a professional side is required to keep the dinner bucket filled.

The members of the Oregon Society will not miss the Bulletin greatly, as the Monad will come to them each month with its columns full of accounts of the good things that engineers are doing for themselves and others.

With the hope that the Bulletin has been of some service to the engineers of the Northwest, the editor lays down his pencil and slams the door of his editorial sanctum.



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